

**NASA Technical Memorandum 83298**

NASA-TM-83298 19820015318

A FLIGHT INVESTIGATION OF BLADE-SECTION  
AERODYNAMICS FOR A HELICOPTER MAIN ROTOR  
HAVING RC-SC2 AIRFOIL SECTIONS

CHARLES E. K. MORRIS, JR.

**LIBRARY COPY**

MARCH 1982

APR 21 1982

LANGLEY RESEARCH CENTER  
LIBRARY, NASA  
HAMPTON, VIRGINIA



National Aeronautics and  
Space Administration

**Langley Research Center**  
Hampton, Virginia 23665



# A FLIGHT INVESTIGATION OF BLADE-SECTION AERODYNAMICS FOR A HELICOPTER MAIN ROTOR HAVING RC-SC2 AIRFOIL SECTIONS

By

Charles E. K. Morris, Jr.  
NASA Langley Research Center  
Hampton, Virginia 23665

## SUMMARY

A flight investigation has been conducted to obtain data on the aerodynamic characteristics of helicopter main-rotor blades with the RC-SC2 blade section. The resulting data sets describe vehicle flight state, performance, loads, and aerodynamic pressures at 90-percent blade radius on the teetering rotor. The test envelope included hover, forward flight up to 74 m/s (144 knots), linear climb and descent, descending turns, and symmetrical pull-ups. Related sets of flight-test data on aerodynamic loads are presented to indicate the relative significance of several detailed numerical records of selected test points. Comparisons are made between pressure distributions measured in flight and associated theoretical distributions calculated for two-dimensional, steady flow. These show good agreement in some cases.

## INTRODUCTION

Advances in rotorcraft airfoil technology can result in improvements in both the performance and loads characteristics of helicopter rotors. Current airfoil design methods, such as those of references 1 and 2, are constrained to function with two-dimensional, steady flow. These methods can not account directly for the complex flow-field of the helicopter rotor. A flight investigation has been conducted to obtain data to relate design-method criteria to the actual rotor environment. Tests with standard, baseline blades on a teetering-rotor helicopter (ref. 3) were followed by tests with a series of three experimental blade sets (ref. 4 to 8). All blade sets had the same planform and twist. Each of the three experimental blade sets were built with a different airfoil; each airfoil was designed with a significantly different method.

This report presents data on blade-section aerodynamic characteristics obtained in the flight tests of a helicopter having the RC-SC2 as the main-rotor blade section. The instrumented vehicle was flown in hover, level flight up to 74 m/s (144 knots), linear climb and descent, and collective-fixed maneuvers at about 56 m/s (109 knots). Data were obtained on performance, flight-state and control parameters, rotor loads and motions, and airfoil pressure distributions at 90-percent radius on one blade. Detailed data on performance and loads for the helicopter with the RC-SC2 blades are presented in reference 6. The results of low-speed, two-dimensional wind-tunnel tests of the RC-SC2 airfoil are presented in reference 9.

N82-23192 #

This report provides a limited sampling of the flight data on blade-section aerodynamic characteristics. Detailed listings of data histories are given for a variety of flight test conditions. Patterns of data trends are defined for related sets of test conditions. In addition, blade-section pressure distributions from flight are compared to distributions obtained from theoretical calculations.

## SYMBOLS

Positive senses of some axes, angles and accelerations are presented in figure 1.

$A_{0s}$	main-rotor collective pitch angle at $0.75R$ , measured at blade grips, deg
$A_{1s}$	first harmonic of main-rotor lateral pitch angle, measured at blade grip, deg
$a$	speed of sound, m/sec
$a_{1s}$	first harmonic of main-rotor longitudinal flapping with respect to the mast, deg
$B_{1s}$	first harmonic of main-rotor longitudinal pitch angle, measured at blade grip, deg
$b_{1s}$	first harmonic of main-rotor lateral flapping with respect to the mast, deg
$C_L'$	vehicle load coefficient, $\frac{Wn_z}{\rho\pi R^2 (\Omega R)^2}$
$C_p$	airfoil pressure coefficient, $\frac{p - p_\infty}{q_\infty}$
$C_p^*$	airfoil pressure coefficient corresponding to a local Mach number of 1.0
$C_Q$	main-rotor mast torque coefficient, $\frac{Q}{\rho\pi R^3 (\Omega R)^2}$
$c$	airfoil chord, m
$c_c$	airfoil chord-force coefficient, pressure only, $\frac{1}{c} \int_{\text{thickness}} (C_{p,f} - C_{p,r}) dz$

$c_l$	airfoil lift coefficient, section lift/(qc)
$c_m$	airfoil pitching-moment coefficient about quarter chord, pressure $\frac{1}{c} \int_{\text{chord}} (C_{p,l} - C_{p,u}) (0.25 - \frac{x}{c}) dx + \frac{1}{c} \int_{\text{thickness}} (C_{p,f} - C_{p,r}) \frac{z}{c} dz$
$c_n$	airfoil normal-force coefficient $\frac{1}{c} \int_{\text{chord}} (C_{p,l} - C_{p,u}) dx$
$f_{3db}$	frequency for 3db amplitude attenuation, Hz
$g$	acceleration due to gravity, 9.81 m/sec <sup>2</sup>
$\dot{h}$	climb rate, m/min
$M$	local Mach number perpendicular to blade leading edge
$M_h$	reference blade-tip Mach number, $\frac{\Omega R}{a}$
$n_z$	normal load factor at aircraft center-of-gravity, g units
$p$	local static pressure at a point on airfoil, $P_a$
$p_f, q_f, r_f$	orthogonal set of angular rates at aircraft center-of-gravity, rad/sec
$p_\infty$	free-stream static pressure, $P_a$
$Q$	main-rotor mast torque, N-m
$q_\infty$	free-stream dynamic pressure of blade section, $P_a$
$R$	blade radius, m
$r$	radial distance to blade element, m
$T_b$	blade temperature on upper surface at $x/c = 0.6$ and $r/R = 0.9$ , C
$t$	airfoil thickness, m; also, time, sec.
$V$	aircraft true airspeed, (m/sec knots)
$W$	airfoil gross weight, N
$X, Y, Z$	orthogonal set of aircraft body axes (See fig. 1.)
$x$	airfoil abscissa, positive rearward from leading edge, m

$y$	airfoil ordinate, positive upward, m
$\alpha_f$	fuselage angle of attack, deg
$\beta_s$	main-rotor, shaft-axis teeter angle, (where $\beta_s = a_0 - a_{1s} \cos\psi - b_{1s} \sin\psi \dots$ ) positive upward, deg
$\theta_f$	fuselage pitch attitude, deg
$\theta_s$	main-rotor, shaft-axis blade pitch at 0.75R, (where $\theta_s = A_0 - A_{1s} \cos\psi - B_{1s} \sin\psi - \dots$ ), measured at blade grip, deg
$\mu$	tip-speed ratio, $V/(\Omega R)$
$\rho$	mass density of air, $\text{kg/m}^3$
$\phi_f$	fuselage roll attitude, deg
$\psi$	main-rotor blade azimuth angle measured from downwind position in direction of rotor rotation, deg
$\Omega$	main-rotor rotational speed, rad/sec

#### Subscripts:

c	mean line
f	forward surface
l	lower surface
r	rearward surface
t	transition to turbulent boundary layer
u	upper surface

## EQUIPMENT AND PROCEDURES

### Test Vehicle

The test vehicle was the instrumented AH-1G attack helicopter shown in figures 2 and 3. Physical characteristics of the vehicle are given in Table I. The teetering-hub main rotor was similar to the standard production configuration except for blade construction, airfoil section, a hub modification, and some structural-dynamic blade properties. Compared to standard blades, the RC-SC2 blades have identical planform, twist, and root-end fitting; however, the new blades were built with the RC-SC2 airfoil contour from about 31-percent blade

radius to the tip. One of these blades was instrumented to measure aerodynamic pressures at one spanwise station, as well as bending loads and internal temperatures. Each pitch horn was modified by the addition of a counterweight, as shown in figure 3(b). (These weights decreased the "tennis-racket" moment, the inertial moment tending to restore flap pitch (ref. 10). This decrease in inertial moment compensated for a larger-than-anticipated mean value of nose-down aerodynamic moment for the RC-SC2 blades in hover.). Details of blade design and other vehicle features are found in references 4 and 6.

### Airfoil

The RC-SC2 airfoil is a 10 percent thick, cambered shape derived from an early supercritical airfoil. This airfoil is essentially the cambered supercritical shape of reference 9 with slight modification to the upper-surface trailing edge to reduce subcritical pitching moment. Airfoil coordinates are given in Table II, and geometric data are presented in figure 4. Maximum thickness is located at 40-percent chord. As shown in figure 4, the point of maximum camber is located far to the rear, fairly close to the moderate trailing-edge reflex. Figure 5 presents a comparison of the design coordinates and the shape actually constructed at the blade spanwise station for pressure measurements.

Aerodynamic characteristics of the RC-SC2 reflect the design emphasis on high speed. Unpublished data from the Langley 6- by 28-inch transonic tunnel were taken for this airfoil at Reynolds number near to those encountered in flight. The maximum normal-force coefficient reached about 1.1 at 0.4 Mach number. Drag-divergence Mach number for zero lift was approximately 0.83, and pitching-moment coefficient about the aerodynamic center (at zero lift) was about -0.02 at subcritical Mach numbers. The resulting mean value of blade pitching moment was negative and sufficiently large in hover as to require the previously discussed modification to the rotor.

### Data System

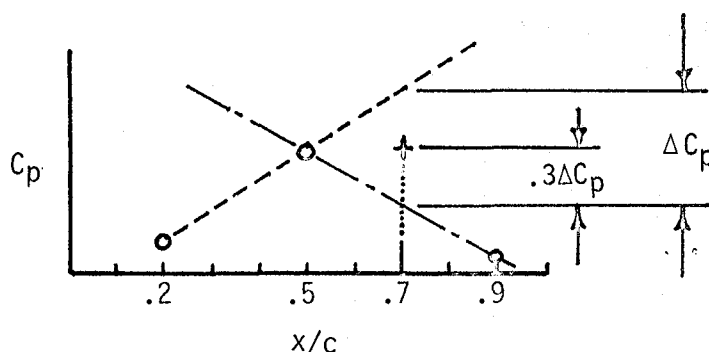
Data from fuselage-mounted sensors were acquired with the Piloted Aircraft Data System (PADS) described in reference 3. These sensors measured flight-state parameters, control positions, and some rotor and engine parameters. Details of the PADS sensor system are given in Table III. PADS electronics used a 10-bit data word, a sampling rate of 80 samples per second per channel, and Pulse-code modulation (PCM) for digitization. PADS-PCM channels were multiplexed and recorded on a single tape deck.

Data from rotor-mounted sensors were processed by the digital Special Rotor Blade Instrumentation (SRBI) system of reference 11. This system provided 30 channels with 8-bit data words (without parity) and a sampling rate of 1000 samples per second per channel. Data signals for rotor loads, teeter angle, blade pitch angle, blade azimuth angle, and canister temperature were processed

in the mast-mounted canister shown in figure 3(b). The maximum errors for teeter angle, blade-pitch angle, blade-azimuth angle and blade temperature were calculated conservatively to be  $0.30^\circ$ ,  $0.8^\circ$ ,  $0.3^\circ$ , and  $1.0^\circ\text{C}$ , respectively. This set of channels is described further in references 4 and 7. Airfoil pressures were sensed by 13 pressure transducers located at 90 percent of rotor radius. Electronics mounted in the blade tip digitized and multiplexed signals for both the blade-section pressures and blade temperature. This data and the canister-processed data were merged and recorded on a single tape deck. A drawing of elements of the pressure-transducer installation is presented in figure 6. Table IV provides a more detailed description of the pressure data system.

### Data Reduction

The pressure-transducer records were processed to produce local pressure and blade-section coefficients for every two degree of azimuth within each selected rotor revolution. Corrected dimensional values of local blade-section pressures were nondimensionalized with other data from the PADS and SRBI systems. These results were integrated, using the methods of reference 12, to yield normal-force, chord-force, and pitching-moment coefficients. An empirical curve fit was used to provide an artificial data value at 70 percent chord on the lower surface, which was the location of a failed transducer. The method is indicated in the sketch below.



The integration methods used estimated values of stagnation-point location and trailing-edge pressure coefficient. Details of this procedure are described in Appendix B of reference 7. (All SRBI data were corrected for the effects of temperature and of filter lag. Rotor speed was calculated from SRBI azimuth data rather than PADS tachometer data.) The standard data-reduction process also yielded loads and performance data for the same rotor revolution (ref. 6).

### Flight-Test Procedures

Flight-test conditions included hover, level forward flight, linear climb and descent, and collective-fixed maneuvers. Test points for steady, level-flight speed sweeps ranged from about 33 to 74 m/sec (65 to 144 knots) in approximately



5 m/sec (10 knot) increments; each point was held for several seconds. Maneuvers were flown with a target tip-speed ratio of 0.25 (approximately 108 knots) and collective pitch set for steady, level flight at that speed. These maneuvers were symmetrical pull-ups and constant-air-speed descending turns. Linear climbs and descents were also flown with the same airspeed target. Emphasis was placed on obtaining a data set that would be useful for comparison with data for the other blade sets flown with this same vehicle. This required strictly controlled and standardized test procedures, close attention to rotor speed, and control of configuration parameters, such as center of gravity.

## DISCUSSION OF RESULTS

Aerodynamic blade-section data for the RC-SC2 blades are presented in figures 7 through 15 and in Appendices A and B. Table V provides a guide to test-point conditions for data in the appendices. Although the present analysis of the data is limited, it does include general considerations for data interpretation, observations on data for different flight conditions, and comparisons of flight-test results with theoretical results.

### Data Interpretation

Interpretation of the data should be influenced by several considerations. First, all flight data were taken at one spanwise station. The 90-percent span location was chosen as a compromise to obtain the greatest range of local Mach numbers while minimizing tip effects. Second, the data were reduced to yield instantaneous rather than averaged data. Unless otherwise noted, all data sets for steady flight conditions are highly periodic with respect to rotor blade azimuth. Third, the cumulative effects from each step of data reduction mean that values of  $C_p$  should be treated as being more accurate than values of  $c_n$  or  $c_m$ . Fourth, data interpretation should account for the variation of accuracy as a function of local dynamic pressure and other parameters that vary with both blade azimuth and vehicle airspeed.

Data accuracy is affected by the methods for integrating pressure distributions to obtain  $c_n$  and  $c_m$ . The effect of using the method of reference 12 can be inferred from figure 7. The value of  $c_n$  for each test condition shown in figure 7 can be computed by integrating either of the two plots for each condition. Each plot on the left hand side of each page illustrates the technique used herein to avoid the difficulty of fitting curves to data plotted simply as  $C_p$  as a function of  $x/c$ .

### Flight Test Data

Data for hovering flight is presented in figure 8. The fluctuations in the data traces are typical and probably indicate the effects of tail-rotor and main-

rotor interactions. The pressure data show that the unsteady flow effects are limited to the forward part of the upper surface.

The azimuthal variation of aerodynamic forces and moments at 90 percent span is presented in figures 9 and 10 for several tip-speed ratios in level flight. The parameters  $c_n M^2$  and  $c_m M^2$  are used because these are directly proportional to the dimensional values of the aerodynamic forces and moments produced by the local chordwise pressure distribution. The data of figure 9 shows that some negative lift and substantial negative pitching moments are encountered by the blade segment in the second quadrant of the rotor disk at high speed. Figure 10 presents data with similar trends.

The pressure data of figure 11 is associated with the force and moment data of figure 10. The low-speed data show the effects of apparent tip-vortex interactions near  $\psi = 75^\circ$  and  $285^\circ$ . These disturbances are visible in the pressure traces for the forward part of the blade section. At the highest tip-speed ratio (fig. 11(c)), there is evidence of three events. First, the leading-edge, upper-surface suction peak collapses at approximately  $\psi = 240^\circ$ . This is a localized phenomenon that affects only the forward section of the blade. Second, the growth and decay of a supercritical-flow region is indicated by the curvature of the data trace from about  $\psi = 60^\circ$  to  $100^\circ$  for the upper surface at  $x/c = 0.2$ . Third, supercritical flow dominates the forward part of the lower surface while the blade is in the second quadrant.

The development of azimuthal patterns in the data for level flight is shown in figure 12. A slight ripple in most data traces at about  $\psi = 75^\circ$  may be indicative of tip-vortex interactions that occur over a wide range of tip-speed ratios (i.e. airspeeds). Vortex interactions in the third quadrant are stronger at lower speeds; they virtually disappear at  $\mu = 0.3$ .

The data of figure 13 illustrates the patterns in the variations of  $c_n$  with  $M$  and  $c_m$  with  $M$  for each rotor revolution at a series of tip-speed ratios. At higher speeds the data patterns form typical shapes: both  $c_n$  and  $c_m$  reach their lowest or most negative values at the high Mach numbers.

### Comparison of Flight Data and Theoretical Calculations

A comparison of experimental and theoretical results for two level-flight test conditions are given in figures 14 and 15. The theoretical pressure distributions were calculated with an analytical method for two-dimensional, steady flow - the computer program of reference 13. The program inputs include airfoil coordinates, Mach number (the experimental values for the flow component perpendicular to the leading edge), lift coefficient (approximated by experimental  $c_n$ ), and boundary-layer transition points (taken from figure 16). Both figures 14 and 15 present pressure distributions at selected azimuths for a single rotor revolution at the two high-speed test points. Although some of the agreement between experiment and simple theory is generally good, some poor agreement is evident in the forward region for the advancing blade at both flight conditions. The agreement for the retreating blade is typically good.

#### CONCLUDING REMARKS

A flight investigation has been conducted with a teetering-rotor helicopter to obtain data on the aerodynamic characteristics of main-rotor blades having the RC-SC2 blade-section contour. Chordwise pressure distributions at 90-percent blade radius were measured for a variety of flight conditions. Data are shown which illustrate apparent blade-vortex interactions and the development of some negative section lift on the advancing blade at high tip-speed ratios. Some good agreement is shown between experimental pressure distributions and distributions calculated for two-dimensional, steady flow.

## APPENDIX A. - AIRFOIL PRESSURE COEFFICIENT DATA

Computer-generated listings of airfoil pressure coefficient data are identified in terms of flight number, run number, and time. Also given are tip-speed ratio (MU), vehicle load coefficient (CLP), and blade temperature at  $x/c = 0.60$  on the upper surface (TEMP(U60)). One column of pressure coefficient data is given for each pressure orifice location, as designated by a value of  $x/c$  (X/C).

The data of Table V serves as a guide for the contents of this appendix.

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/19.

FLT 92 RUN 27 TIME 45028.000

MU= .243 CLP= .00703 TEMP(U60)= 32.1 C = 89.72 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
0.	-2.199	-.870	-.545	-.442	-.294	-.259	-.155	-.039	.377	.133	.043	-.098		-.019
2.	-2.049	-.831	-.532	-.433	-.289	-.266	-.167	-.038	.292	.096	.015	-.103		-.014
4.	-1.900	-.815	-.522	-.429	-.293	-.279	-.178	-.043	.227	.061	-.011	-.101		-.005
6.	-1.752	-.812	-.524	-.434	-.291	-.280	-.189	-.048	.168	.030	-.036	-.116		.000
8.	-1.640	-.824	-.517	-.435	-.296	-.287	-.193	-.054	.131	.013	-.051	-.128		.008
10.	-1.543	-.812	-.508	-.431	-.294	-.287	-.189	-.058	.110	-.003	-.053	-.126		.007
12.	-1.445	-.789	-.499	-.431	-.289	-.282	-.186	-.064	.080	-.022	-.062	-.135		.013
14.	-1.344	-.776	-.490	-.429	-.284	-.277	-.190	-.067	.039	-.049	-.082	-.143		.019
16.	-1.280	-.790	-.518	-.438	-.279	-.285	-.200	-.066	.039	-.059	-.104	-.160		.019
18.	-1.265	-.843	-.535	-.454	-.274	-.296	-.209	-.065	.055	-.049	-.106	-.160		.019
20.	-1.291	-.894	-.551	-.469	-.310	-.307	-.203	-.057	.100	-.023	-.084	-.157		.012
22.	-1.336	-.929	-.555	-.478	-.332	-.305	-.187	-.046	.126	-.014	-.080	-.155		.007
24.	-1.339	-.949	-.570	-.477	-.339	-.287	-.172	-.034	.135	-.013	-.079	-.152		.007
26.	-1.327	-.962	-.562	-.464	-.314	-.266	-.166	-.031	.126	-.019	-.078	-.159		.006
28.	-1.307	-.967	-.563	-.452	-.298	-.262	-.172	-.038	.101	-.032	-.087	-.157		.006
30.	-1.281	-.958	-.544	-.445	-.293	-.272	-.181	-.040	.074	-.045	-.096	-.155		.013
32.	-1.249	-.945	-.526	-.439	-.278	-.282	-.190	-.047	.050	-.064	-.116	-.180		.017
34.	-1.210	-.932	-.519	-.435	-.285	-.279	-.190	-.040	.034	-.083	-.134	-.187		.016
36.	-1.165	-.909	-.510	-.432	-.302	-.276	-.187	-.038	.003	-.099	-.143	-.193		.016
38.	-1.107	-.885	-.505	-.437	-.305	-.287	-.182	-.033	-.049	-.116	-.157	-.197		.017
40.	-1.040	-.863	-.501	-.440	-.303	-.283	-.180	-.034	-.095	-.129	-.172	-.197		.016
42.	-.991	-.848	-.507	-.447	-.301	-.279	-.180	-.036	-.095	-.133	-.157	-.201		.016
44.	-.978	-.856	-.519	-.452	-.306	-.277	-.177	-.034	-.064	-.116	-.167	-.191		.024
46.	-.981	-.863	-.528	-.455	-.312	-.286	-.173	-.031	-.035	-.099	-.145	-.187		.034
48.	-.984	-.866	-.540	-.460	-.319	-.282	-.174	-.035	-.016	-.094	-.132	-.177		.026
50.	-.987	-.869	-.542	-.465	-.314	-.279	-.173	-.027	.017	-.093	-.130	-.171		.016
52.	-.981	-.872	-.533	-.457	-.306	-.277	-.171	-.026	.030	-.092	-.129	-.178		.015
54.	-.970	-.864	-.520	-.454	-.305	-.274	-.169	-.026	.002	-.089	-.132	-.182		.015
56.	-.952	-.847	-.509	-.451	-.289	-.275	-.164	-.021	-.029	-.097	-.141	-.182		.015
58.	-.942	-.849	-.500	-.454	-.297	-.285	-.165	-.032	-.036	-.100	-.142	-.186		.015

FLT 92 RUN27

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/19.

FLT 92 RUN 27 TIME 45028.000

MU= .243 CLP= .00703 TEMP(U60)= 32.1 C = 89.72 F

X/C* AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES						
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90	
60.	-.944	-.854	-.516	-.457	-.307	-.292	-.163	-.031	-.015	-.090	-.138	-.185		.015	
62.	-.949	-.847	-.527	-.462	-.319	-.290	-.162	-.023	.023	-.086	-.130	-.183		.015	
64.	-.964	-.830	-.537	-.468	-.322	-.285	-.159	-.019	.031	-.076	-.131	-.181		.015	
66.	-.961	-.825	-.566	-.473	-.323	-.275	-.158	-.012	.031	-.073	-.136	-.183		.015	
68.	-.955	-.843	-.624	-.471	-.324	-.273	-.157	-.011	.031	-.073	-.135	-.187		.015	
70.	-.950	-.870	-.692	-.468	-.313	-.272	-.157	-.005	.042	-.072	-.134	-.186		.015	
72.	-.968	-.888	-.749	-.455	-.306	-.270	-.156	-.010	.032	-.072	-.134	-.185		.016	
74.	-.963	-.904	-.796	-.436	-.300	-.269	-.155	-.003	.031	-.070	-.140	-.187		.023	
76.	-.959	-.910	-.836	-.429	-.289	-.269	-.153	-.002	.031	-.080	-.148	-.190		.023	
78.	-.938	-.911	-.871	-.419	-.287	-.267	-.154	-.004	.027	-.086	-.150	-.191		.023	
80.	-.935	-.905	-.889	-.409	-.289	-.259	-.158	-.011	.027	-.097	-.153	-.204		.024	
82.	-.932	-.883	-.896	-.392	-.288	-.253	-.158	-.011	-.011	-.107	-.153	-.217		.032	
84.	-.919	-.860	-.904	-.383	-.283	-.258	-.158	-.010	-.025	-.118	-.162	-.220		.039	
86.	-.905	-.805	-.906	-.376	-.274	-.257	-.158	-.010	-.050	-.129	-.179	-.219		.039	
88.	-.883	-.785	-.898	-.374	-.275	-.252	-.158	-.010	-.063	-.139	-.185	-.219		.039	
90.	-.869	-.776	-.894	-.366	-.278	-.258	-.157	-.010	-.069	-.150	-.185	-.219		.039	
92.	-.843	-.774	-.887	-.368	-.276	-.264	-.156	-.008	-.111	-.156	-.187	-.213		.039	
94.	-.821	-.775	-.879	-.377	-.280	-.265	-.153	-.004	-.135	-.167	-.188	-.210		.040	
96.	-.799	-.776	-.856	-.386	-.283	-.265	-.153	-.004	-.151	-.178	-.195	-.211		.040	
98.	-.775	-.777	-.793	-.395	-.290	-.266	-.153	-.008	-.177	-.188	-.203	-.211		.040	
100.	-.745	-.775	-.705	-.404	-.293	-.266	-.154	-.008	-.203	-.188	-.206	-.212		.040	
102.	-.724	-.766	-.606	-.411	-.287	-.267	-.154	-.004	-.226	-.195	-.213	-.212		.040	
104.	-.703	-.753	-.530	-.412	-.286	-.268	-.164	-.008	-.243	-.224	-.222	-.213		.040	
106.	-.682	-.739	-.473	-.414	-.280	-.269	-.163	-.012	-.267	-.233	-.225	-.214		.040	
108.	-.666	-.732	-.453	-.416	-.287	-.270	-.156	-.012	-.289	-.237	-.233	-.221		.040	
110.	-.653	-.724	-.445	-.417	-.275	-.272	-.157	-.012	-.326	-.249	-.235	-.203		.045	
112.	-.634	-.718	-.440	-.419	-.274	-.273	-.157	-.012	-.346	-.259	-.236	-.222		.050	
114.	-.620	-.713	-.434	-.423	-.278	-.274	-.161	-.015	-.349	-.263	-.241	-.227		.044	
116.	-.613	-.707	-.427	-.416	-.290	-.265	-.164	-.018	-.357	-.266	-.244	-.229		.040	
118.	-.603	-.704	-.417	-.413	-.293	-.265	-.166	-.019	-.372	-.266	-.246	-.231		.041	

FLT 92 RUN27

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/19.

FLT 92 RUN 27 TIME 45028.000

MU= .243 CLP= .00703 TEMP(U60)= 32.1 C = 89.72 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
120.	-.600	-.703	-.413	-.416	-.281	-.269	-.162	-.013	-.381	-.265	-.233	-.199		.042
122.	-.601	-.699	-.417	-.415	-.286	-.258	-.165	-.015	-.398	-.270	-.239	-.202		.042
124.	-.600	-.686	-.420	-.418	-.289	-.259	-.168	-.017	-.416	-.273	-.241	-.204		.042
126.	-.605	-.676	-.423	-.417	-.291	-.262	-.169	-.017	-.406	-.270	-.234	-.198		.042
128.	-.611	-.687	-.418	-.411	-.285	-.264	-.171	-.018	-.396	-.266	-.228	-.200		.043
130.	-.617	-.705	-.420	-.412	-.287	-.267	-.164	-.025	-.393	-.263	-.229	-.202		.043
132.	-.623	-.724	-.416	-.408	-.281	-.269	-.173	-.027	-.382	-.260	-.222	-.202		.043
134.	-.629	-.735	-.420	-.402	-.284	-.259	-.176	-.027	-.371	-.255	-.216	-.189		.044
136.	-.636	-.742	-.424	-.403	-.284	-.262	-.167	-.025	-.378	-.231	-.216	-.191		.045
138.	-.652	-.742	-.426	-.403	-.279	-.253	-.168	-.025	-.370	-.218	-.210	-.191		.045
140.	-.672	-.736	-.423	-.407	-.280	-.256	-.160	-.025	-.362	-.218	-.212	-.185		.037
142.	-.686	-.725	-.427	-.405	-.273	-.260	-.158	-.021	-.348	-.223	-.209	-.180		.037
144.	-.696	-.709	-.425	-.400	-.281	-.260	-.176	-.029	-.333	-.220	-.198	-.181		.027
146.	-.716	-.693	-.431	-.403	-.282	-.251	-.168	-.029	-.322	-.218	-.191	-.175		.036
148.	-.729	-.676	-.436	-.397	-.270	-.255	-.159	-.029	-.311	-.212	-.180	-.165		.028
150.	-.750	-.653	-.438	-.401	-.249	-.259	-.161	-.030	-.298	-.200	-.173	-.154		.027
152.	-.763	-.665	-.432	-.394	-.252	-.259	-.161	-.028	-.286	-.199	-.182	-.156		.028
154.	-.786	-.661	-.432	-.405	-.255	-.252	-.164	-.028	-.260	-.190	-.163	-.158		.029
156.	-.802	-.660	-.440	-.402	-.259	-.256	-.163	-.026	-.232	-.181	-.152	-.161		.030
158.	-.829	-.670	-.441	-.397	-.266	-.259	-.159	-.032	-.230	-.171	-.157	-.160		.029
160.	-.844	-.667	-.436	-.403	-.270	-.258	-.161	-.034	-.219	-.159	-.155	-.157		.030
162.	-.872	-.678	-.437	-.399	-.274	-.252	-.164	-.044	-.190	-.159	-.146	-.155		.030
164.	-.888	-.688	-.444	-.405	-.274	-.257	-.167	-.044	-.173	-.149	-.136	-.147		.031
166.	-.919	-.686	-.444	-.401	-.277	-.261	-.167	-.045	-.158	-.136	-.127	-.139		.031
168.	-.951	-.698	-.447	-.408	-.283	-.259	-.160	-.046	-.142	-.123	-.123	-.136		.032
170.	-.969	-.708	-.454	-.414	-.275	-.253	-.159	-.047	-.108	-.124	-.119	-.133		.032
172.	-.986	-.708	-.463	-.410	-.273	-.258	-.152	-.048	-.090	-.111	-.108	-.124		.033
174.	-1.022	-.721	-.462	-.416	-.278	-.263	-.154	-.045	-.072	-.096	-.098	-.121		.030
176.	-1.059	-.734	-.466	-.413	-.283	-.258	-.157	-.041	-.054	-.081	-.079	-.117		.024
178.	-1.097	-.744	-.474	-.420	-.289	-.264	-.160	-.050	-.030	-.066	-.070	-.107		.031

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/19.

FLT 92 RUN 27 TIME 45028.000

MU= .243 CLP= .00703 TEMP(U60)= 32.1 C = 89.72 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
180.	-1.136	-.745	-.483	-.426	-.286	-.267	-.163	-.051	.045	-.067	-.071	-.105		.022
182.	-1.173	-.759	-.493	-.423	-.286	-.264	-.166	-.052	.045	-.050	-.064	-.107		.022
184.	-1.199	-.774	-.502	-.431	-.291	-.269	-.170	-.053	.049	-.033	-.060	-.100		.023
186.	-1.242	-.789	-.512	-.436	-.297	-.275	-.173	-.054	.072	-.018	-.052	-.107		.023
188.	-1.286	-.804	-.509	-.434	-.303	-.267	-.176	-.055	.096	-.015	-.038	-.104		.023
190.	-1.337	-.820	-.516	-.442	-.309	-.265	-.180	-.056	.120	.004	-.024	-.092		.024
192.	-1.399	-.836	-.526	-.451	-.315	-.270	-.175	-.057	.146	.023	-.021	-.091		.018
194.	-1.454	-.853	-.537	-.460	-.309	-.276	-.170	-.059	.172	.040	-.009	-.082		.009
196.	-1.519	-.869	-.547	-.469	-.311	-.281	-.173	-.060	.200	.045	.006	-.070		.009
198.	-1.579	-.887	-.558	-.472	-.317	-.287	-.177	-.061	.228	.067	.023	-.069		.010
200.	-1.647	-.904	-.569	-.472	-.323	-.292	-.180	-.062	.258	.083	.039	-.020		.010
202.	-1.711	-.922	-.580	-.481	-.330	-.298	-.184	-.063	.289	.091	.042	-.013		.010
204.	-1.791	-.951	-.592	-.490	-.321	-.304	-.176	-.065	.320	.108	.043	-.013		.010
206.	-1.873	-.980	-.603	-.500	-.325	-.310	-.172	-.066	.353	.110	.060	-.013		.010
208.	-1.947	-.999	-.615	-.509	-.331	-.316	-.176	-.067	.387	.121	.079	-.014		.011
210.	-2.032	-1.018	-.626	-.519	-.338	-.300	-.179	-.068	.422	.137	.081	-.014		.011
212.	-2.146	-1.051	-.640	-.529	-.344	-.303	-.182	-.070	.458	.149	.100	-.014		-.001
214.	-2.250	-1.080	-.670	-.539	-.350	-.309	-.186	-.071	.482	.176	.121	-.015		-.008
216.	-2.353	-1.100	-.683	-.538	-.357	-.314	-.189	-.072	.505	.193	.123	-.015		-.008
218.	-2.480	-1.136	-.695	-.540	-.363	-.320	-.193	-.074	.544	.208	.126	-.015		-.008
220.	-2.621	-1.164	-.707	-.549	-.350	-.326	-.196	-.075	.584	.225	.147	-.014		-.008
222.	-2.760	-1.184	-.720	-.559	-.356	-.304	-.200	-.060	.608	.242	.155	-.000		-.008
224.	-2.891	-1.205	-.732	-.568	-.362	-.309	-.184	-.058	.619	.259	.212	-.016		-.008
226.	-3.007	-1.225	-.744	-.578	-.368	-.314	-.184	-.059	.647	.263	.215	-.016		-.008
228.	-3.113	-1.244	-.756	-.587	-.371	-.319	-.187	-.060	.671	.283	.219	-.016		-.009
230.	-3.221	-1.285	-.768	-.581	-.358	-.324	-.190	-.061	.681	.298	.222	-.017		-.009
232.	-3.329	-1.310	-.780	-.584	-.367	-.329	-.193	-.062	.713	.303	.225	-.017		-.009
234.	-3.416	-1.329	-.791	-.593	-.391	-.334	-.195	-.063	.734	.326	.229	-.012		-.009
236.	-3.494	-1.348	-.802	-.601	-.391	-.339	-.198	-.064	.745	.340	.232	.002		-.009
238.	-3.572	-1.366	-.813	-.609	-.378	-.337	-.176	-.065	.755	.344	.235	.008		-.009

FLT 92 RUN27



## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 92 RUN 27 TIME 45028.000

MU= .243 CLP= .00703 TEMP(U60)= 32.1 C = 89.72 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
240.	-3.649	-1.357	-.823	-.617	-.383	-.316	-.178	-.066	.764	.391	.238	.016		-.032
242.	-3.699	-1.371	-.833	-.624	-.388	-.320	-.180	-.066	.773	.412	.241	.002		-.033
244.	-3.768	-1.386	-.831	-.631	-.392	-.324	-.182	-.067	.782	.416	.244	.002		-.033
246.	-3.812	-1.401	-.826	-.638	-.396	-.327	-.184	-.068	.790	.421	.246	.002		-.034
248.	-3.872	-1.415	-.834	-.644	-.400	-.330	-.186	-.068	.798	.425	.249	.002		-.034
250.	-3.917	-1.427	-.841	-.627	-.404	-.333	-.188	-.069	.806	.429	.251	.002		-.034
252.	-3.950	-1.438	-.835	-.631	-.397	-.336	-.189	-.070	.812	.432	.253	.002		-.035
254.	-3.979	-1.419	-.828	-.612	-.385	-.339	-.191	-.070	.818	.435	.255	.002		-.035
256.	-4.005	-1.429	-.834	-.616	-.388	-.341	-.192	-.071	.824	.436	.256	.002		-.035
258.	-4.029	-1.437	-.838	-.620	-.390	-.343	-.193	-.071	.828	.441	.258	.002		-.035
260.	-4.048	-1.444	-.843	-.623	-.379	-.345	-.194	-.071	.833	.443	.259	.002		-.036
262.	-4.065	-1.450	-.846	-.625	-.381	-.346	-.195	-.072	.836	.445	.260	.015		-.036
264.	-4.078	-1.454	-.849	-.627	-.395	-.347	-.196	-.072	.839	.446	.261	.025		-.036
266.	-4.087	-1.458	-.851	-.629	-.395	-.348	-.196	-.072	.879	.447	.262	.025		-.036
268.	-4.097	-1.460	-.852	-.630	-.396	-.348	-.196	-.072	.879	.448	.262	.011		-.036
270.	-4.123	-1.460	-.852	-.630	-.396	-.349	-.196	-.072	.880	.448	.262	.003		-.036
272.	-4.127	-1.460	-.872	-.630	-.396	-.348	-.196	-.072	.880	.448	.262	.003		-.036
274.	-4.121	-1.458	-.878	-.635	-.396	-.348	-.185	-.072	.878	.447	.262	.002		-.036
276.	-4.112	-1.465	-.876	-.652	-.395	-.347	-.180	-.072	.876	.446	.261	.002		-.036
278.	-4.107	-1.492	-.895	-.650	-.412	-.346	-.182	-.072	.881	.445	.260	.002		-.036
280.	-4.108	-1.507	-.897	-.655	-.418	-.345	-.180	-.071	.908	.443	.259	.002		-.036
282.	-4.063	-1.500	-.892	-.669	-.415	-.343	-.193	-.071	.903	.447	.277	.002		-.035
284.	-4.040	-1.517	-.911	-.665	-.413	-.341	-.178	-.071	.907	.470	.281	.002		-.035
286.	-3.992	-1.543	-.932	-.660	-.410	-.339	-.164	-.070	.929	.467	.279	.002		-.035
288.	-3.884	-1.588	-.928	-.656	-.407	-.336	-.163	-.070	.933	.471	.297	.002		-.035
290.	-3.753	-1.669	-.969	-.650	-.404	-.334	-.162	-.069	.963	.499	.319	.002		-.034
292.	-3.620	-1.716	-.989	-.644	-.400	-.331	-.177	-.083	.991	.516	.319	.002		-.034
294.	-3.501	-1.807	-1.005	-.638	-.397	-.327	-.185	-.075	1.030	.521	.316	.022		-.034
296.	-3.413	-1.857	-1.045	-.632	-.436	-.324	-.165	-.067	1.065	.535	.334	.023		-.048
298.	-3.415	-1.703	-.979	-.613	-.414	-.320	-.155	-.066	1.010	.507	.310	.003		-.057

FLT 92 RUN27

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 92 RUN 27 TIME 45028.000

MU= .243 CLP= .00703 TEMP(U60)= 32.1 C = 89.72 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
300.	-3.441	-1.465	-.844	-.583	-.385	-.288	-.136	-.066	.892	.441	.262	-.018		-.071
302.	-3.336	-1.296	-.762	-.553	-.379	-.282	-.163	-.081	.777	.365	.235	-.018		-.078
304.	-3.154	-1.201	-.728	-.536	-.328	-.249	-.174	-.101	.696	.299	.144	-.017		-.077
306.	-2.959	-1.164	-.696	-.528	-.323	-.244	-.134	-.088	.652	.266	.121	-.017		-.076
308.	-2.801	-1.148	-.686	-.534	-.320	-.241	-.122	-.066	.627	.234	.119	-.017		-.075
310.	-2.705	-1.131	-.676	-.534	-.336	-.295	-.139	-.044	.617	.217	.115	-.017		-.074
312.	-2.670	-1.133	-.670	-.526	-.333	-.292	-.161	-.041	.608	.214	.095	-.016		-.055
314.	-2.655	-1.141	-.683	-.531	-.347	-.315	-.181	-.057	.598	.211	.093	-.016		-.034
316.	-2.677	-1.149	-.689	-.543	-.341	-.309	-.181	-.058	.607	.207	.095	-.016		-.029
318.	-2.734	-1.135	-.683	-.540	-.339	-.304	-.193	-.075	.609	.219	.110	-.026		-.029
320.	-2.777	-1.135	-.687	-.531	-.350	-.299	-.196	-.075	.618	.225	.108	-.067		-.023
322.	-2.808	-1.141	-.681	-.521	-.344	-.298	-.193	-.074	.617	.237	.106	-.066		-.010
324.	-2.818	-1.145	-.683	-.527	-.338	-.315	-.139	-.072	.606	.241	.100	-.051		-.003
326.	-2.838	-1.148	-.678	-.521	-.332	-.309	-.186	-.071	.595	.237	.084	-.015		-.003
328.	-2.842	-1.151	-.686	-.527	-.331	-.303	-.133	-.070	.605	.233	.083	-.014		-.003
330.	-2.818	-1.131	-.685	-.520	-.338	-.304	-.179	-.068	.600	.228	.081	-.014		-.007
332.	-2.810	-1.110	-.672	-.526	-.332	-.316	-.177	-.067	.589	.224	.080	-.014		-.007
334.	-2.784	-1.089	-.668	-.517	-.331	-.310	-.191	-.066	.578	.220	.073	-.013		-.007
336.	-2.754	-1.111	-.674	-.507	-.337	-.304	-.188	-.065	.567	.216	.077	-.038		-.008
338.	-2.725	-1.111	-.671	-.514	-.337	-.298	-.184	-.063	.556	.211	.075	-.071		-.022
340.	-2.695	-1.111	-.667	-.504	-.341	-.293	-.181	-.062	.545	.207	.074	-.070		-.007
342.	-2.644	-1.110	-.672	-.510	-.341	-.295	-.177	-.061	.535	.203	.072	-.069		-.007
344.	-2.593	-1.110	-.676	-.516	-.344	-.303	-.177	-.060	.546	.199	.071	-.067		-.006
346.	-2.564	-1.126	-.680	-.522	-.345	-.306	-.187	-.059	.532	.214	.069	-.066		-.006
348.	-2.556	-1.129	-.694	-.526	-.354	-.312	-.183	-.057	.595	.266	.115	-.058		-.003
350.	-2.547	-1.164	-.703	-.514	-.355	-.306	-.180	-.056	.695	.281	.154	-.043		.009
352.	-2.535	-1.173	-.664	-.489	-.348	-.290	-.172	-.051	.746	.295	.151	-.022		.005
354.	-2.487	-1.059	-.604	-.468	-.316	-.275	-.158	-.041	.666	.271	.148	-.011		-.010
356.	-2.432	-.906	-.578	-.457	-.292	-.270	-.155	-.045	.587	.246	.145	-.058		-.016
358.	-2.324	-.863	-.557	-.439	-.286	-.265	-.157	-.047	.490	.188	.091	-.083		-.010

FLT 92 RUN27

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 92 RUN 39 TIME 45900.000

MU= .231 CLP= .00446 TEMP(U60)= 32.3 C = 90.18 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
0.	-2.270	-1.024	-.633	-.480	-.312	-.289	-.162	-.042	.448	.148	.034	-.077		-.013
2.	-2.230	-1.024	-.621	-.480	-.307	-.283	-.159	-.041	.434	.141	.031	-.084		-.013
4.	-2.184	-1.015	-.611	-.472	-.301	-.278	-.165	-.041	.412	.126	.019	-.084		-.012
6.	-2.135	-.997	-.600	-.470	-.296	-.274	-.168	-.040	.390	.118	.005	-.094		-.012
8.	-2.091	-.990	-.604	-.469	-.291	-.285	-.165	-.039	.359	.105	.004	-.093		-.012
10.	-2.038	-.980	-.594	-.461	-.286	-.282	-.162	-.038	.344	.096	-.009	-.114		-.003
12.	-1.986	-.964	-.584	-.453	-.281	-.277	-.170	-.038	.319	.078	-.009	-.113		.001
14.	-1.936	-.948	-.574	-.454	-.277	-.273	-.171	-.037	.294	.068	-.021	-.121		.001
16.	-1.883	-.944	-.565	-.451	-.272	-.268	-.168	-.037	.270	.059	-.022	-.121		.001
18.	-1.830	-.933	-.556	-.443	-.268	-.264	-.165	-.036	.247	.042	-.034	-.130		.001
20.	-1.769	-.919	-.548	-.445	-.264	-.262	-.163	-.035	.225	.035	-.043	-.139		.012
22.	-1.709	-.905	-.539	-.441	-.268	-.272	-.160	-.035	.203	.025	-.048	-.147		.013
24.	-1.652	-.904	-.531	-.435	-.282	-.268	-.170	-.034	.182	.009	-.067	-.152		.002
26.	-1.596	-.892	-.529	-.429	-.263	-.264	-.168	-.035	.162	-.006	-.074	-.150		.001
28.	-1.529	-.880	-.528	-.433	-.283	-.265	-.167	-.044	.142	-.020	-.077	-.148		.001
30.	-1.475	-.863	-.521	-.427	-.284	-.272	-.175	-.042	.108	-.035	-.087	-.146		.002
32.	-1.411	-.870	-.514	-.422	-.287	-.268	-.173	-.033	.088	-.049	-.097	-.153		.012
34.	-1.362	-.858	-.507	-.427	-.283	-.265	-.171	-.032	.070	-.062	-.107	-.166		.012
36.	-1.314	-.849	-.501	-.422	-.279	-.268	-.169	-.032	.052	-.075	-.116	-.173		.012
38.	-1.255	-.852	-.495	-.425	-.276	-.272	-.166	-.031	.050	-.075	-.126	-.181		.012
40.	-1.211	-.852	-.487	-.414	-.273	-.269	-.168	-.031	.003	-.087	-.128	-.188		.011
42.	-1.167	-.844	-.489	-.413	-.274	-.267	-.172	-.028	-.010	-.096	-.131	-.182		.012
44.	-1.126	-.844	-.488	-.422	-.280	-.264	-.168	-.025	-.028	-.109	-.132	-.189		.012
46.	-1.088	-.837	-.483	-.417	-.276	-.261	-.168	-.027	-.059	-.124	-.155	-.200		.016
48.	-1.049	-.834	-.478	-.413	-.271	-.267	-.168	-.030	-.077	-.136	-.162	-.200		.021
50.	-1.011	-.833	-.483	-.413	-.276	-.268	-.166	-.029	-.103	-.144	-.168	-.198		.021
52.	-.975	-.825	-.470	-.412	-.276	-.266	-.165	-.029	-.117	-.150	-.176	-.204		.021
54.	-.938	-.810	-.463	-.410	-.273	-.264	-.163	-.029	-.130	-.165	-.193	-.203		.020
56.	-.904	-.799	-.463	-.414	-.277	-.262	-.159	-.025	-.150	-.168	-.190	-.208		.021
58.	-.873	-.795	-.459	-.411	-.282	-.258	-.162	-.031	-.175	-.184	-.195	-.210		.026

FLT 92 RUN39

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 92 RUN 39 TIME 45900.000

MU= .231 CLP= .00446 TEMP(U60)= 32.3 C = 90.18 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES				
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70
AZIMUTH													
60.	-.840	-.789	-.456	-.408	-.270	-.256	-.163	-.033	-.182	-.195	-.203	-.233	.029
62.	-.815	-.776	-.453	-.405	-.268	-.267	-.162	-.033	-.195	-.200	-.211	-.231	.028
64.	-.789	-.767	-.449	-.404	-.266	-.265	-.161	-.033	-.223	-.199	-.210	-.229	.028
66.	-.757	-.751	-.443	-.396	-.264	-.264	-.160	-.032	-.240	-.195	-.218	-.226	.028
68.	-.735	-.735	-.432	-.386	-.262	-.263	-.174	-.028	-.253	-.193	-.223	-.217	.029
70.	-.703	-.726	-.429	-.388	-.268	-.262	-.155	-.027	-.273	-.220	-.228	-.216	.029
72.	-.690	-.715	-.428	-.382	-.265	-.262	-.170	-.022	-.291	-.236	-.228	-.219	.029
74.	-.663	-.698	-.426	-.385	-.265	-.260	-.173	-.027	-.293	-.242	-.238	-.232	.023
76.	-.637	-.686	-.421	-.387	-.263	-.260	-.167	-.023	-.304	-.254	-.242	-.237	.029
78.	-.611	-.662	-.415	-.386	-.265	-.258	-.152	-.027	-.341	-.267	-.247	-.237	.029
80.	-.596	-.638	-.409	-.376	-.261	-.257	-.157	-.029	-.370	-.269	-.253	-.236	.037
82.	-.570	-.624	-.398	-.375	-.255	-.256	-.173	-.029	-.397	-.279	-.256	-.236	.037
84.	-.544	-.610	-.387	-.371	-.255	-.256	-.172	-.029	-.399	-.290	-.265	-.240	.037
86.	-.513	-.587	-.382	-.362	-.253	-.256	-.166	-.028	-.424	-.300	-.273	-.243	.037
88.	-.492	-.570	-.375	-.362	-.253	-.256	-.157	-.027	-.438	-.311	-.276	-.242	.037
90.	-.467	-.544	-.365	-.362	-.247	-.256	-.170	-.027	-.466	-.322	-.281	-.247	.037
92.	-.443	-.541	-.363	-.361	-.243	-.256	-.170	-.027	-.492	-.323	-.284	-.250	.037
94.	-.421	-.530	-.356	-.354	-.244	-.256	-.170	-.027	-.509	-.335	-.291	-.250	.037
96.	-.407	-.516	-.346	-.349	-.245	-.256	-.171	-.032	-.538	-.349	-.295	-.245	.041
98.	-.382	-.493	-.346	-.349	-.246	-.247	-.173	-.037	-.563	-.359	-.303	-.244	.046
100.	-.362	-.487	-.329	-.346	-.246	-.244	-.173	-.033	-.587	-.363	-.305	-.244	.046
102.	-.346	-.477	-.328	-.342	-.239	-.255	-.173	-.029	-.617	-.372	-.306	-.238	.046
104.	-.327	-.467	-.319	-.337	-.239	-.258	-.174	-.029	-.629	-.373	-.307	-.230	.046
106.	-.315	-.463	-.319	-.332	-.240	-.248	-.175	-.029	-.653	-.383	-.308	-.239	.046
108.	-.303	-.457	-.311	-.334	-.239	-.248	-.174	-.034	-.670	-.397	-.308	-.239	.047
110.	-.292	-.447	-.311	-.335	-.231	-.250	-.159	-.036	-.687	-.399	-.309	-.232	.047
112.	-.288	-.438	-.305	-.336	-.232	-.251	-.155	-.036	-.698	-.401	-.311	-.232	.047
114.	-.283	-.439	-.306	-.337	-.234	-.252	-.156	-.036	-.711	-.405	-.313	-.219	.048
116.	-.282	-.433	-.300	-.339	-.238	-.251	-.161	-.041	-.722	-.395	-.317	-.223	.047
118.	-.275	-.433	-.302	-.334	-.239	-.242	-.162	-.042	-.736	-.388	-.311	-.231	.047

FLT 92 RUN39

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/21.

FLT 92 RUN 39 TIME 45900.000

MU= .231 CLP= .00446 TEMP(U60)= 32.3 C = 90.18 F

X/C=	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
120.	-.273	-.437	-.301	-.334	-.235	-.243	-.163	-.042	-.746	-.391	-.311	-.233		.048
122.	-.275	-.461	-.296	-.337	-.214	-.245	-.164	-.042	-.751	-.394	-.304	-.234		.048
124.	-.288	-.490	-.292	-.327	-.215	-.247	-.166	-.042	-.746	-.388	-.300	-.227		.048
126.	-.288	-.502	-.292	-.335	-.215	-.250	-.166	-.042	-.734	-.383	-.296	-.209		.049
128.	-.292	-.521	-.302	-.329	-.214	-.249	-.162	-.034	-.727	-.378	-.286	-.204		.051
130.	-.308	-.526	-.304	-.332	-.218	-.242	-.166	-.039	-.718	-.369	-.280	-.207		.049
132.	-.325	-.531	-.307	-.335	-.220	-.244	-.168	-.039	-.710	-.360	-.273	-.204		.041
134.	-.329	-.535	-.317	-.339	-.223	-.247	-.170	-.039	-.687	-.350	-.271	-.202		.041
136.	-.346	-.530	-.325	-.341	-.225	-.249	-.168	-.040	-.663	-.341	-.268	-.205		.042
138.	-.364	-.533	-.328	-.336	-.227	-.252	-.162	-.040	-.638	-.331	-.261	-.195		.042
140.	-.383	-.533	-.332	-.340	-.230	-.255	-.164	-.041	-.613	-.321	-.253	-.185		.043
142.	-.402	-.549	-.336	-.344	-.233	-.249	-.166	-.041	-.588	-.311	-.246	-.184		.043
144.	-.426	-.555	-.340	-.349	-.236	-.247	-.168	-.042	-.562	-.301	-.238	-.187		.039
146.	-.457	-.568	-.345	-.353	-.239	-.250	-.164	-.042	-.536	-.291	-.230	-.181		.034
148.	-.483	-.584	-.360	-.354	-.242	-.253	-.161	-.043	-.509	-.280	-.222	-.174		.034
150.	-.515	-.592	-.366	-.352	-.245	-.245	-.163	-.043	-.481	-.261	-.223	-.166		.035
152.	-.538	-.600	-.371	-.357	-.249	-.245	-.165	-.044	-.453	-.235	-.206	-.158		.035
154.	-.569	-.617	-.377	-.362	-.252	-.249	-.168	-.045	-.417	-.233	-.197	-.150		.036
156.	-.601	-.632	-.382	-.365	-.256	-.252	-.161	-.045	-.377	-.222	-.188	-.152		.036
158.	-.634	-.640	-.387	-.371	-.260	-.256	-.170	-.046	-.346	-.209	-.178	-.154		.028
160.	-.668	-.630	-.394	-.371	-.261	-.261	-.163	-.035	-.314	-.196	-.156	-.154		.026
162.	-.706	-.620	-.400	-.373	-.256	-.263	-.165	-.045	-.282	-.184	-.150	-.140		.026
164.	-.741	-.625	-.406	-.379	-.261	-.252	-.168	-.038	-.248	-.171	-.150	-.149		.026
166.	-.782	-.636	-.413	-.385	-.274	-.256	-.158	-.037	-.225	-.158	-.140	-.140		.026
168.	-.831	-.647	-.420	-.391	-.268	-.260	-.173	-.038	-.195	-.144	-.129	-.131		.027
170.	-.867	-.658	-.432	-.398	-.273	-.264	-.176	-.051	-.145	-.129	-.118	-.125		.027
172.	-.915	-.685	-.448	-.405	-.278	-.269	-.165	-.050	-.101	-.114	-.107	-.123		.028
174.	-.968	-.697	-.456	-.412	-.282	-.274	-.168	-.040	-.078	-.099	-.095	-.118		.028
176.	-1.023	-.727	-.464	-.419	-.287	-.278	-.171	-.043	-.041	-.068	-.083	-.110		.029
178.	-1.080	-.739	-.473	-.426	-.292	-.276	-.171	-.054	.002	-.048	-.065	-.092		.029

FLT 92 RUN39

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 92 RUN 39 TIME 45900.000

MU= .231 CLP= .00446 TEMP(U60)= 32.3 C = 90.18 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES						
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90	
AZIMUTH															
180.	-1.138	-.755	-.481	-.434	-.298	-.269	-.162	-.052	.065	-.031	-.051	-.087		.030	
182.	-1.199	-.784	-.499	-.441	-.296	-.274	-.165	-.043	.070	-.030	-.044	-.089		.027	
184.	-1.263	-.802	-.514	-.436	-.294	-.279	-.168	-.044	.116	.006	-.030	-.091		.016	
186.	-1.346	-.832	-.524	-.444	-.299	-.284	-.171	-.044	.143	.026	-.016	-.092		.016	
188.	-1.413	-.847	-.533	-.452	-.305	-.290	-.174	-.045	.190	.045	-.001	-.085		.017	
190.	-1.487	-.869	-.543	-.460	-.310	-.295	-.177	-.046	.217	.048	.005	-.073		.017	
192.	-1.575	-.899	-.554	-.469	-.316	-.286	-.181	-.047	.246	.070	.016	-.070		.017	
194.	-1.649	-.915	-.564	-.477	-.310	-.284	-.175	-.048	.276	.088	.033	-.071		.018	
196.	-1.732	-.932	-.590	-.486	-.311	-.290	-.170	-.049	.306	.094	.037	-.049		.018	
198.	-1.826	-.950	-.603	-.489	-.331	-.295	-.173	-.049	.338	.112	.051	-.045		.018	
200.	-1.917	-.979	-.614	-.488	-.325	-.301	-.176	-.050	.370	.114	.069	-.046		.009	
202.	-2.014	-1.007	-.626	-.497	-.329	-.306	-.179	-.051	.404	.124	.072	.011		.002	
204.	-2.100	-1.026	-.637	-.506	-.335	-.290	-.183	-.052	.439	.140	.074	.014		.002	
206.	-2.201	-1.044	-.649	-.505	-.341	-.293	-.171	-.053	.462	.153	.092	.014		.002	
208.	-2.303	-1.063	-.661	-.507	-.347	-.299	-.170	-.054	.484	.168	.095	.011		.002	
210.	-2.381	-1.083	-.669	-.517	-.335	-.304	-.173	-.055	.506	.184	.114	-.018		.002	
212.	-2.483	-1.102	-.664	-.526	-.341	-.309	-.176	-.056	.532	.198	.116	-.018		.002	
214.	-2.571	-1.121	-.676	-.535	-.347	-.315	-.179	-.057	.553	.202	.118	-.019		-.015	
216.	-2.662	-1.141	-.688	-.529	-.353	-.320	-.161	-.058	.583	.222	.125	-.010		-.018	
218.	-2.742	-1.160	-.699	-.534	-.354	-.320	-.185	-.059	.602	.234	.141	.015		-.018	
220.	-2.838	-1.179	-.711	-.543	-.344	-.304	-.166	-.060	.612	.238	.150	.016		-.018	
222.	-2.918	-1.199	-.723	-.552	-.350	-.309	-.169	-.061	.622	.241	.166	.016		-.019	
224.	-2.968	-1.192	-.723	-.541	-.355	-.314	-.172	-.062	.659	.267	.169	.016		-.019	
226.	-3.041	-1.211	-.723	-.549	-.361	-.318	-.175	-.063	.673	.276	.171	.016		-.019	
228.	-3.089	-1.229	-.734	-.557	-.356	-.323	-.177	-.059	.684	.280	.174	.017		-.020	
230.	-3.134	-1.247	-.745	-.563	-.349	-.328	-.180	-.045	.694	.284	.177	.017		-.020	
232.	-3.178	-1.259	-.740	-.552	-.354	-.318	-.182	-.045	.703	.288	.179	.017		-.020	
234.	-3.222	-1.254	-.741	-.559	-.359	-.323	-.185	-.054	.713	.292	.181	.017		-.020	
236.	-3.264	-1.262	-.751	-.567	-.364	-.324	-.187	-.068	.722	.296	.184	.018		-.021	
238.	-3.298	-1.257	-.741	-.574	-.353	-.315	-.190	-.068	.731	.300	.186	.018		-.021	

FLT 92 RUN39

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/21.

FLT 92 RUN 39 TIME 45900.000

MU= .231 CLP= .00446 TEMP(U60)= 32.3 C = 90.18 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
240.	-3.313	-1.272	-.745	-.581	-.349	-.318	-.192	-.069	.740	.303	.188	.018		-.021
242.	-3.341	-1.275	-.753	-.587	-.353	-.322	-.194	-.070	.740	.307	.190	.018		-.021
244.	-3.343	-1.271	-.761	-.593	-.357	-.325	-.182	-.071	.721	.310	.193	.018		-.022
246.	-3.343	-1.283	-.744	-.599	-.360	-.329	-.188	-.072	.728	.313	.194	.019		-.022
248.	-3.353	-1.279	-.749	-.594	-.364	-.332	-.200	-.072	.735	.316	.196	.019		-.022
250.	-3.367	-1.276	-.756	-.586	-.367	-.334	-.183	-.073	.741	.318	.198	.019		-.022
252.	-3.359	-1.286	-.760	-.577	-.370	-.337	-.176	-.073	.747	.321	.199	.019		-.022
254.	-3.347	-1.274	-.740	-.570	-.372	-.339	-.178	-.074	.752	.323	.201	.019		-.023
256.	-3.333	-1.271	-.745	-.574	-.350	-.341	-.201	-.074	.756	.325	.202	.019		-.023
258.	-3.316	-1.279	-.749	-.577	-.374	-.343	-.184	-.075	.761	.327	.203	.020		-.023
260.	-3.296	-1.284	-.752	-.580	-.352	-.345	-.205	-.075	.764	.328	.200	.020		-.023
262.	-3.274	-1.289	-.755	-.582	-.354	-.346	-.209	-.075	.742	.330	.180	.020		-.023
264.	-3.248	-1.293	-.757	-.584	-.355	-.347	-.182	-.076	.731	.331	.181	.020		-.023
266.	-3.219	-1.267	-.749	-.585	-.356	-.348	-.182	-.076	.733	.331	.181	.020		-.023
268.	-3.188	-1.265	-.733	-.564	-.356	-.348	-.182	-.076	.734	.332	.181	.020		-.023
270.	-3.154	-1.266	-.733	-.561	-.356	-.349	-.182	-.076	.734	.332	.181	.020		-.023
272.	-3.148	-1.234	-.733	-.561	-.356	-.348	-.186	-.076	.734	.305	.181	.001		-.023
274.	-3.112	-1.232	-.732	-.560	-.356	-.348	-.204	-.076	.698	.299	.181	-.025		-.026
276.	-3.070	-1.230	-.730	-.559	-.343	-.347	-.188	-.076	.693	.299	.181	-.002		-.044
278.	-3.027	-1.226	-.711	-.557	-.341	-.346	-.201	-.075	.691	.298	.167	-.005		-.028
280.	-3.013	-1.222	-.698	-.555	-.353	-.345	-.189	-.075	.689	.297	.155	-.024		-.042
282.	-2.964	-1.216	-.695	-.553	-.351	-.343	-.197	-.075	.686	.295	.154	-.024		-.023
284.	-2.914	-1.210	-.691	-.550	-.349	-.342	-.179	-.074	.682	.291	.153	-.024		-.023
286.	-2.861	-1.202	-.687	-.546	-.347	-.339	-.178	-.074	.678	.261	.153	-.024		-.023
288.	-2.807	-1.194	-.682	-.543	-.345	-.337	-.176	-.073	.673	.259	.151	.009		-.022
290.	-2.752	-1.185	-.677	-.538	-.323	-.335	-.189	-.073	.659	.257	.132	.019		-.022
292.	-2.706	-1.161	-.672	-.534	-.314	-.332	-.200	-.072	.626	.255	.125	.019		-.022
294.	-2.657	-1.134	-.665	-.529	-.332	-.329	-.198	-.072	.621	.252	.124	.019		-.022
296.	-2.591	-1.123	-.659	-.524	-.333	-.326	-.196	-.071	.615	.240	.123	.019		-.022
298.	-2.564	-1.111	-.652	-.518	-.329	-.322	-.194	-.086	.608	.218	.100	-.062		-.021

FLT 92 RUN39

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 92 RUN 39 TIME 45900.000

MU= .231 CLP= .00446 TEMP(U60)= 32.3 C = 90.18 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
300.	-2.520	-1.099	-.645	-.513	-.326	-.319	-.192	-.091	.601	.215	.098	-.063		-.021
302.	-2.475	-1.086	-.637	-.520	-.322	-.315	-.190	-.090	.577	.213	.097	-.062		-.021
304.	-2.445	-1.073	-.629	-.523	-.319	-.311	-.187	-.089	.553	.210	.095	-.054		-.021
306.	-2.395	-1.080	-.626	-.516	-.337	-.307	-.185	-.088	.546	.208	.094	-.006		-.020
308.	-2.351	-1.072	-.637	-.509	-.332	-.306	-.182	-.087	.539	.205	.093	-.060		-.020
310.	-2.319	-1.057	-.628	-.502	-.327	-.328	-.180	-.085	.531	.202	.092	-.059		-.020
312.	-2.307	-1.066	-.627	-.512	-.323	-.324	-.177	-.084	.523	.199	.090	-.058		-.020
314.	-2.280	-1.053	-.632	-.508	-.318	-.319	-.175	-.083	.516	.196	.089	-.057		-.019
316.	-2.268	-1.062	-.632	-.518	-.320	-.314	-.172	-.082	.508	.193	.088	-.057		-.019
318.	-2.237	-1.046	-.645	-.512	-.329	-.309	-.169	-.080	.525	.190	.086	-.056		-.018
320.	-2.276	-1.056	-.647	-.504	-.332	-.313	-.170	-.079	.522	.187	.085	-.055		.002
322.	-2.296	-1.064	-.648	-.496	-.339	-.326	-.185	-.078	.513	.184	.083	-.054		.002
324.	-2.312	-1.072	-.646	-.507	-.333	-.320	-.182	-.076	.533	.181	.082	-.053		.002
326.	-2.329	-1.078	-.648	-.500	-.338	-.315	-.179	-.075	.525	.178	.081	-.052		.002
328.	-2.394	-1.084	-.645	-.508	-.341	-.310	-.183	-.074	.516	.198	.079	-.051		.002
330.	-2.452	-1.089	-.647	-.502	-.335	-.304	-.193	-.073	.509	.195	.078	-.050		.002
332.	-2.469	-1.094	-.656	-.508	-.341	-.314	-.190	-.071	.528	.191	.076	-.049		.002
334.	-2.539	-1.090	-.649	-.503	-.342	-.318	-.186	-.070	.542	.191	.075	-.048		.002
336.	-2.567	-1.070	-.654	-.507	-.335	-.312	-.183	-.069	.533	.207	.074	-.060		-.006
338.	-2.586	-1.069	-.661	-.504	-.329	-.306	-.180	-.067	.529	.203	.072	-.074		-.003
340.	-2.578	-1.084	-.668	-.512	-.323	-.301	-.176	-.066	.539	.199	.071	-.075		-.007
342.	-2.563	-1.085	-.674	-.512	-.332	-.314	-.173	-.065	.529	.196	.070	-.074		-.006
344.	-2.552	-1.087	-.663	-.510	-.328	-.312	-.182	-.064	.528	.192	.069	-.073		.002
346.	-2.528	-1.088	-.668	-.509	-.338	-.306	-.184	-.052	.534	.189	.067	-.071		-.009
348.	-2.503	-1.088	-.657	-.500	-.332	-.301	-.181	-.047	.524	.185	.066	-.057		-.014
350.	-2.467	-1.075	-.660	-.500	-.327	-.295	-.177	-.046	.514	.182	.065	-.069		-.014
352.	-2.435	-1.069	-.651	-.497	-.336	-.290	-.174	-.045	.505	.178	.064	-.069		-.014
354.	-2.398	-1.055	-.652	-.488	-.330	-.286	-.171	-.044	.496	.175	.061	-.081		-.014
356.	-2.355	-1.051	-.645	-.489	-.324	-.299	-.168	-.044	.473	.172	.047	-.091		-.013
358.	-2.313	-1.035	-.644	-.484	-.318	-.294	-.165	-.043	.457	.157	.043	-.089		-.013

FLT 92 RUN39



## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/19.

FLT 92 RUN 40 TIME 45992.200

MU= .249 CLP= .00493 TEMP(U60)= 32.1 C = 89.73 F

X/C* AZIMUTH	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
0.	-1.040	-.662	-.413	-.359	-.260	-.277	-.179	-.051	.032	-.079	-.126	-.180		.014
2.	-.986	-.622	-.390	-.352	-.257	-.287	-.182	-.050	-.039	-.095	-.138	-.178		.020
4.	-.887	-.576	-.367	-.345	-.252	-.269	-.178	-.058	-.096	-.118	-.149	-.175		.019
6.	-.751	-.521	-.347	-.339	-.235	-.262	-.165	-.051	-.185	-.150	-.159	-.183		.019
8.	-.639	-.492	-.340	-.335	-.217	-.240	-.158	-.057	-.273	-.181	-.183	-.180		.019
10.	-.577	-.495	-.336	-.331	-.213	-.235	-.166	-.058	-.329	-.205	-.215	-.178		.018
12.	-.543	-.492	-.329	-.322	-.212	-.247	-.179	-.070	-.362	-.218	-.203	-.196		.018
14.	-.515	-.482	-.323	-.318	-.221	-.259	-.179	-.061	-.393	-.238	-.214	-.194		.017
16.	-.490	-.475	-.318	-.323	-.227	-.255	-.173	-.056	-.447	-.257	-.233	-.199		.017
18.	-.454	-.467	-.313	-.320	-.225	-.250	-.172	-.057	-.490	-.259	-.250	-.199		.017
20.	-.426	-.459	-.312	-.315	-.221	-.246	-.170	-.057	-.518	-.255	-.246	-.206		.016
22.	-.415	-.452	-.315	-.319	-.220	-.246	-.167	-.056	-.520	-.251	-.242	-.213		.027
24.	-.422	-.458	-.315	-.316	-.229	-.254	-.176	-.055	-.511	-.247	-.242	-.213		.027
26.	-.444	-.465	-.317	-.321	-.233	-.250	-.174	-.054	-.503	-.243	-.245	-.207		.027
28.	-.454	-.459	-.318	-.317	-.230	-.246	-.169	-.053	-.467	-.263	-.241	-.210		.025
30.	-.462	-.481	-.326	-.323	-.226	-.242	-.157	-.050	-.456	-.275	-.242	-.211		.015
32.	-.485	-.500	-.333	-.328	-.223	-.239	-.157	-.044	-.450	-.273	-.245	-.218		.017
34.	-.492	-.506	-.333	-.325	-.225	-.242	-.164	-.051	-.475	-.269	-.241	-.219		.025
36.	-.485	-.510	-.336	-.330	-.228	-.247	-.165	-.050	-.468	-.265	-.244	-.216		.025
38.	-.492	-.504	-.335	-.327	-.225	-.243	-.170	-.050	-.462	-.274	-.245	-.214		.025
40.	-.486	-.501	-.339	-.333	-.228	-.248	-.173	-.049	-.456	-.272	-.248	-.217		.024
42.	-.480	-.507	-.346	-.338	-.229	-.251	-.177	-.048	-.451	-.280	-.248	-.217		.028
44.	-.477	-.514	-.352	-.340	-.226	-.248	-.175	-.043	-.445	-.277	-.252	-.214		.034
46.	-.485	-.520	-.359	-.342	-.223	-.255	-.172	-.037	-.440	-.275	-.251	-.211		.033
48.	-.494	-.533	-.357	-.346	-.244	-.256	-.170	-.037	-.436	-.283	-.249	-.217		.033
50.	-.502	-.546	-.372	-.350	-.248	-.263	-.169	-.037	-.431	-.279	-.247	-.216		.033
52.	-.509	-.558	-.379	-.359	-.253	-.264	-.166	-.035	-.426	-.275	-.243	-.213		.032
54.	-.518	-.572	-.388	-.367	-.252	-.261	-.164	-.034	-.422	-.274	-.249	-.219		.032
56.	-.527	-.572	-.394	-.370	-.261	-.258	-.165	-.037	-.419	-.268	-.251	-.234		.032
58.	-.534	-.588	-.400	-.373	-.258	-.256	-.164	-.030	-.415	-.257	-.247	-.232		.031

FLT 92 RUN40

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 92 RUN 40 TIME 45992.200

MU= .249 CLP= .00493 TEMP(U60)= 32.1 C = 89.73 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
60.	-.534	-.602	-.405	-.376	-.255	-.255	-.160	-.025	-.410	-.259	-.243	-.229		.031
62.	-.539	-.611	-.405	-.374	-.261	-.265	-.157	-.023	-.408	-.264	-.241	-.220		.039
64.	-.540	-.613	-.409	-.376	-.262	-.263	-.159	-.026	-.405	-.269	-.250	-.229		.040
66.	-.536	-.616	-.407	-.379	-.266	-.261	-.157	-.024	-.402	-.272	-.248	-.240		.040
68.	-.525	-.623	-.405	-.377	-.259	-.260	-.156	-.024	-.401	-.278	-.256	-.239		.040
70.	-.510	-.612	-.403	-.375	-.266	-.258	-.157	-.026	-.408	-.289	-.265	-.238		.039
72.	-.495	-.607	-.401	-.381	-.262	-.259	-.156	-.026	-.420	-.299	-.270	-.239		.047
74.	-.481	-.594	-.395	-.373	-.254	-.267	-.174	-.025	-.431	-.309	-.272	-.243		.039
76.	-.457	-.581	-.388	-.370	-.253	-.263	-.173	-.018	-.454	-.319	-.279	-.245		.038
78.	-.431	-.567	-.382	-.369	-.252	-.257	-.173	-.018	-.479	-.329	-.287	-.249		.038
80.	-.406	-.534	-.371	-.368	-.252	-.260	-.172	-.019	-.505	-.340	-.295	-.248		.039
82.	-.381	-.531	-.366	-.359	-.251	-.252	-.172	-.026	-.530	-.350	-.307	-.248		.047
84.	-.356	-.518	-.360	-.358	-.251	-.257	-.172	-.026	-.556	-.361	-.315	-.247		.047
86.	-.332	-.497	-.350	-.356	-.250	-.257	-.171	-.026	-.570	-.382	-.320	-.247		.047
88.	-.308	-.483	-.340	-.347	-.245	-.251	-.171	-.026	-.608	-.393	-.328	-.247		.047
90.	-.284	-.463	-.323	-.340	-.241	-.251	-.171	-.026	-.623	-.404	-.337	-.247		.047
92.	-.260	-.452	-.319	-.338	-.241	-.251	-.171	-.026	-.660	-.416	-.345	-.247		.047
94.	-.236	-.438	-.311	-.332	-.242	-.251	-.171	-.026	-.676	-.427	-.348	-.247		.050
96.	-.219	-.420	-.302	-.330	-.235	-.252	-.172	-.026	-.704	-.439	-.355	-.247		.055
98.	-.203	-.410	-.293	-.324	-.234	-.252	-.172	-.030	-.732	-.451	-.358	-.248		.056
100.	-.177	-.394	-.283	-.319	-.234	-.253	-.172	-.029	-.760	-.463	-.366	-.248		.056
102.	-.152	-.372	-.274	-.317	-.226	-.254	-.172	-.030	-.784	-.471	-.367	-.249		.056
104.	-.134	-.357	-.266	-.315	-.201	-.245	-.172	-.026	-.806	-.474	-.369	-.249		.056
106.	-.123	-.348	-.258	-.308	-.201	-.254	-.167	-.025	-.831	-.489	-.371	-.251		.056
108.	-.111	-.338	-.250	-.305	-.202	-.257	-.172	-.032	-.855	-.502	-.372	-.252		.056
110.	-.100	-.328	-.250	-.299	-.203	-.246	-.168	-.034	-.880	-.487	-.374	-.253		.057
112.	-.087	-.325	-.242	-.298	-.204	-.247	-.159	-.035	-.898	-.500	-.376	-.255		.057
114.	-.076	-.320	-.242	-.295	-.204	-.249	-.157	-.033	-.917	-.501	-.376	-.255		.058
116.	-.072	-.319	-.236	-.294	-.206	-.238	-.159	-.035	-.937	-.490	-.372	-.249		.058
118.	-.064	-.322	-.235	-.297	-.208	-.240	-.161	-.035	-.958	-.493	-.373	-.244		.058

FLT 92 RUN40

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 92 RUN 40 TIME 45992.200

MU= .249 CLP= .00493 TEMP(U60)= 32.1 C = 89.73 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.30	.70	.90
120.	-.061	-.324	-.230	-.292	-.209	-.242	-.162	-.036	-.970	-.497	-.369	-.246		.059
122.	-.062	-.337	-.232	-.290	-.211	-.244	-.163	-.036	-.988	-.493	-.369	-.248		.068
124.	-.061	-.351	-.233	-.294	-.212	-.243	-.164	-.036	-1.010	-.492	-.366	-.250		.060
126.	-.062	-.367	-.236	-.289	-.211	-.236	-.164	-.034	-1.023	-.498	-.365	-.239		.061
128.	-.063	-.371	-.238	-.291	-.207	-.237	-.168	-.037	-1.033	-.493	-.360	-.218		.061
130.	-.064	-.387	-.236	-.288	-.209	-.235	-.167	-.037	-1.043	-.496	-.354	-.220		.061
132.	-.066	-.392	-.233	-.284	-.208	-.229	-.161	-.038	-1.055	-.491	-.353	-.235		.062
134.	-.064	-.392	-.235	-.281	-.204	-.232	-.163	-.039	-1.065	-.481	-.351	-.232		.061
136.	-.079	-.387	-.238	-.284	-.206	-.235	-.160	-.037	-1.078	-.487	-.345	-.223		.054
138.	-.080	-.392	-.242	-.282	-.203	-.237	-.155	-.039	-1.076	-.480	-.340	-.220		.054
140.	-.083	-.399	-.245	-.283	-.202	-.232	-.158	-.041	-1.089	-.475	-.335	-.220		.055
142.	-.086	-.399	-.239	-.275	-.205	-.229	-.161	-.043	-1.087	-.467	-.336	-.223		.055
144.	-.097	-.394	-.239	-.276	-.207	-.232	-.157	-.042	-1.084	-.457	-.332	-.219		.056
146.	-.098	-.400	-.233	-.273	-.201	-.226	-.152	-.041	-1.080	-.440	-.325	-.212		.057
148.	-.104	-.405	-.235	-.276	-.201	-.224	-.155	-.042	-1.062	-.443	-.319	-.221		.058
150.	-.116	-.405	-.238	-.281	-.195	-.228	-.157	-.042	-1.044	-.436	-.313	-.217		.059
152.	-.123	-.404	-.242	-.285	-.196	-.219	-.152	-.043	-1.025	-.428	-.306	-.211		.060
154.	-.134	-.410	-.245	-.289	-.199	-.220	-.150	-.044	-1.000	-.420	-.310	-.213		.054
156.	-.143	-.416	-.249	-.294	-.202	-.223	-.152	-.044	-.970	-.412	-.294	-.207		.050
158.	-.154	-.414	-.253	-.298	-.205	-.227	-.154	-.045	-.950	-.403	-.297	-.200		.051
160.	-.165	-.415	-.256	-.301	-.197	-.230	-.157	-.046	-.921	-.395	-.280	-.193		.052
162.	-.174	-.421	-.248	-.310	-.200	-.218	-.149	-.046	-.890	-.385	-.283	-.195		.053
164.	-.169	-.431	-.255	-.302	-.202	-.223	-.147	-.044	-.858	-.377	-.274	-.186		.044
166.	-.199	-.439	-.259	-.300	-.209	-.225	-.154	-.051	-.828	-.370	-.271	-.172		.042
168.	-.215	-.447	-.263	-.302	-.213	-.229	-.157	-.052	-.792	-.360	-.265	-.175		.042
170.	-.248	-.453	-.267	-.296	-.214	-.233	-.160	-.053	-.759	-.348	-.270	-.178		.043
172.	-.261	-.462	-.272	-.299	-.205	-.235	-.160	-.051	-.733	-.302	-.262	-.181		.044
174.	-.324	-.470	-.277	-.312	-.209	-.225	-.162	-.052	-.690	-.288	-.235	-.180		.045
176.	-.341	-.477	-.281	-.319	-.213	-.229	-.152	-.052	-.655	-.292	-.230	-.171		.046
178.	-.347	-.503	-.286	-.312	-.215	-.234	-.152	-.050	-.625	-.283	-.232	-.161		.047

FLT 92 RUN40

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 92 RUN 40 TIME 45992.200

MU= .249 CLP= .00493 TEMP(U60)= 32.1 C = 89.73 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES						
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90	
AZIMUTH															
180.	-.372	-.513	-.300	-.331	-.219	-.239	-.155	-.051	-.594	-.270	-.219	-.151		.048	
182.	-.399	-.523	-.314	-.342	-.224	-.244	-.158	-.052	-.521	-.256	-.193	-.141		.049	
184.	-.448	-.538	-.320	-.344	-.229	-.248	-.162	-.054	-.485	-.227	-.176	-.139		.047	
186.	-.477	-.563	-.325	-.351	-.234	-.253	-.162	-.057	-.424	-.209	-.166	-.134		.036	
188.	-.529	-.573	-.343	-.358	-.237	-.258	-.151	-.055	-.386	-.193	-.159	-.122		.037	
190.	-.583	-.605	-.355	-.367	-.242	-.264	-.148	-.056	-.343	-.177	-.137	-.111		.038	
192.	-.635	-.618	-.364	-.377	-.247	-.269	-.148	-.058	-.280	-.160	-.129	-.103		.033	
194.	-.676	-.617	-.384	-.380	-.254	-.260	-.162	-.061	-.237	-.145	-.122	-.111		.023	
196.	-.740	-.601	-.395	-.390	-.258	-.257	-.165	-.062	-.190	-.124	-.106	-.102		.023	
198.	-.818	-.615	-.404	-.400	-.262	-.263	-.167	-.052	-.142	-.105	-.078	-.112		.024	
200.	-.883	-.637	-.428	-.404	-.270	-.267	-.162	-.049	-.093	-.086	-.076	-.105		.024	
202.	-.939	-.660	-.438	-.412	-.273	-.273	-.157	-.049	-.039	-.063	-.060	-.105		.025	
204.	-.993	-.686	-.447	-.423	-.278	-.279	-.158	-.048	.026	-.041	-.042	-.092		.026	
206.	-1.064	-.711	-.458	-.435	-.267	-.285	-.162	-.049	.076	-.019	-.042	-.077		.026	
208.	-1.138	-.726	-.469	-.434	-.274	-.289	-.167	-.054	.088	-.008	-.028	-.096		.013	
210.	-1.213	-.756	-.496	-.434	-.279	-.295	-.172	-.056	.119	-.008	-.011	-.096		.007	
212.	-1.275	-.779	-.506	-.431	-.285	-.275	-.175	-.057	.152	.004	-.009	-.066		.008	
214.	-1.343	-.794	-.516	-.432	-.290	-.280	-.178	-.058	.185	.016	.008	-.068		.008	
216.	-1.405	-.809	-.525	-.440	-.293	-.285	-.182	-.059	.219	.032	.008	-.069		.008	
218.	-1.461	-.845	-.535	-.449	-.284	-.290	-.164	-.061	.255	.043	.012	-.070		.008	
220.	-1.537	-.865	-.545	-.457	-.302	-.296	-.166	-.042	.270	.061	.029	-.052		-.011	
222.	-1.601	-.881	-.555	-.448	-.291	-.301	-.169	-.063	.298	.071	.035	.001		-.013	
224.	-1.659	-.895	-.565	-.452	-.296	-.306	-.172	-.064	.312	.072	.051	.001		-.013	
226.	-1.692	-.911	-.574	-.480	-.301	-.303	-.175	-.065	.344	.095	.051	.001		-.013	
228.	-1.748	-.927	-.572	-.489	-.306	-.287	-.178	-.063	.356	.102	.052	.001		-.014	
230.	-1.807	-.942	-.569	-.497	-.311	-.291	-.181	-.050	.392	.104	.063	.001		-.014	
232.	-1.867	-.956	-.578	-.505	-.305	-.296	-.178	-.068	.401	.132	.076	.001		-.014	
234.	-1.896	-.971	-.587	-.512	-.309	-.300	-.161	-.063	.441	.136	.077	.001		-.014	
236.	-1.954	-.984	-.593	-.512	-.312	-.305	-.164	-.048	.448	.138	.079	.001		-.015	
238.	-1.978	-.988	-.601	-.519	-.303	-.310	-.164	-.047	.458	.145	.082	.002		-.014	

FLT 92 RUN40

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 92 RUN 40 TIME 45992.200

MU= .249 CLP= .00493 TEMP(U60)= 32.1 C = 89.73 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
240.	-2.004	-.978	-.589	-.527	-.305	-.314	-.163	-.043	.468	.149	.085	.003		-.014
242.	-2.030	-.991	-.592	-.523	-.292	-.318	-.165	-.044	.501	.179	.086	.003		-.014
244.	-2.056	-1.005	-.600	-.474	-.290	-.321	-.170	-.047	.472	.177	.084	.001		-.015
246.	-2.078	-1.016	-.606	-.480	-.294	-.324	-.174	-.064	.485	.179	.084	.001		-.015
248.	-2.100	-1.013	-.612	-.485	-.318	-.327	-.176	-.075	.520	.180	.084	.001		-.016
250.	-2.119	-1.004	-.618	-.489	-.326	-.330	-.177	-.076	.513	.182	.085	.001		-.016
252.	-2.133	-1.013	-.623	-.489	-.306	-.333	-.179	-.077	.490	.184	.086	.001		-.016
254.	-2.153	-1.019	-.625	-.488	-.305	-.336	-.180	-.077	.496	.187	.087	.001		-.016
256.	-2.149	-1.024	-.601	-.496	-.303	-.340	-.178	-.073	.501	.191	.092	.003		-.015
258.	-2.145	-1.032	-.608	-.489	-.305	-.342	-.178	-.071	.503	.190	.093	.003		-.015
260.	-2.158	-1.039	-.611	-.480	-.311	-.342	-.182	-.077	.503	.188	.088	.001		-.016
262.	-2.167	-1.043	-.614	-.482	-.312	-.343	-.184	-.079	.505	.189	.088	.001		-.016
264.	-2.174	-1.022	-.616	-.484	-.313	-.344	-.185	-.079	.507	.190	.089	.001		-.016
266.	-2.154	-1.016	-.617	-.485	-.310	-.345	-.185	-.080	.508	.190	.089	.001		-.016
268.	-2.146	-1.045	-.618	-.486	-.292	-.346	-.186	-.080	.509	.191	.089	.001		-.016
270.	-2.147	-1.022	-.618	-.486	-.314	-.346	-.186	-.080	.509	.191	.089	.001		-.016
272.	-2.146	-1.048	-.618	-.486	-.314	-.346	-.186	-.080	.509	.191	.089	.001		-.016
274.	-2.143	-1.049	-.617	-.485	-.314	-.345	-.185	-.080	.508	.190	.089	.001		-.016
276.	-2.170	-1.047	-.616	-.484	-.303	-.345	-.185	-.079	.507	.190	.089	-.036		-.016
278.	-2.167	-1.044	-.614	-.482	-.296	-.343	-.184	-.079	.505	.189	.089	-.051		-.016
280.	-2.158	-1.039	-.627	-.506	-.311	-.342	-.184	-.079	.503	.188	.076	.001		-.016
282.	-2.147	-1.034	-.635	-.495	-.309	-.340	-.183	-.078	.501	.187	.062	.001		-.016
284.	-2.133	-1.030	-.631	-.500	-.319	-.339	-.180	-.076	.502	.191	.064	-.049		-.016
286.	-2.155	-1.053	-.626	-.488	-.315	-.337	-.177	-.073	.533	.185	.063	-.034		-.015
288.	-2.140	-1.042	-.621	-.484	-.316	-.334	-.187	-.074	.533	.189	.064	-.056		-.016
290.	-2.151	-1.042	-.636	-.497	-.322	-.332	-.200	-.069	.524	.187	.065	-.086		-.015
292.	-2.139	-1.055	-.637	-.550	-.319	-.329	-.198	-.069	.486	.185	.065	-.086		-.015
294.	-2.135	-1.044	-.630	-.544	-.316	-.326	-.196	-.068	.481	.178	.064	-.085		-.014
296.	-2.078	-1.033	-.624	-.542	-.313	-.346	-.194	-.067	.467	.150	.044	-.084		-.014
298.	-2.020	-1.009	-.619	-.541	-.309	-.352	-.192	-.067	.432	.147	.039	-.083		-.014

FLT 92 RUN40

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 92 RUN 40 TIME 45992.200

MU= .249 CLP= .00493 TEMP(U60)= 32.1 C = 89.73 F

X/C=	UPPER SURFACE CP VALUES							LOWER SURFACE CP VALUES						
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
300.	-1.964	-.982	-.612	-.531	-.309	-.346	-.192	-.070	.413	.133	.014	-.121		-.014
302.	-1.891	-.952	-.576	-.519	-.305	-.342	-.192	-.071	.372	.112	.010	-.124		-.015
304.	-1.783	-.906	-.557	-.477	-.298	-.333	-.186	-.066	.332	.102	.014	-.121		-.014
306.	-1.646	-.863	-.533	-.437	-.293	-.334	-.182	-.063	.276	.070	-.008	-.119		-.013
308.	-1.510	-.821	-.502	-.430	-.265	-.329	-.179	-.062	.217	.039	-.031	-.138		-.013
310.	-1.428	-.799	-.495	-.434	-.261	-.324	-.177	-.061	.179	.023	-.052	-.155		-.013
312.	-1.378	-.791	-.491	-.422	-.260	-.318	-.174	-.078	.138	.003	-.055	-.153		-.013
314.	-1.323	-.775	-.478	-.410	-.281	-.311	-.178	-.090	.123	-.009	-.079	-.149		.004
316.	-1.269	-.760	-.470	-.403	-.271	-.308	-.190	-.079	.102	-.022	-.071	-.133		.009
318.	-1.239	-.747	-.462	-.396	-.266	-.303	-.188	-.077	.089	-.031	-.074	-.145		.009
320.	-1.217	-.734	-.454	-.389	-.261	-.297	-.185	-.076	.088	-.049	-.088	-.142		.009
322.	-1.173	-.697	-.447	-.389	-.257	-.292	-.181	-.074	.086	-.056	-.087	-.140		.009
324.	-1.149	-.710	-.440	-.436	-.253	-.286	-.178	-.073	.082	-.058	-.087	-.138		.009
326.	-1.128	-.697	-.442	-.433	-.258	-.280	-.178	-.077	.080	-.058	-.087	-.136		.008
328.	-1.106	-.684	-.443	-.418	-.265	-.284	-.175	-.075	.079	-.077	-.086	-.134		.008
330.	-1.083	-.668	-.434	-.410	-.259	-.296	-.171	-.073	.080	-.076	-.100	-.138		.008
332.	-1.062	-.658	-.425	-.402	-.252	-.291	-.165	-.068	-.002	-.074	-.115	-.143		.008
334.	-1.041	-.666	-.431	-.400	-.247	-.285	-.162	-.066	-.032	-.073	-.113	-.150		.008
336.	-1.023	-.660	-.430	-.392	-.254	-.279	-.160	-.067	-.034	-.097	-.113	-.144		.008
338.	-1.006	-.669	-.422	-.388	-.269	-.286	-.159	-.068	-.035	-.095	-.123	-.156		.007
340.	-1.014	-.678	-.427	-.396	-.271	-.291	-.156	-.074	-.058	-.096	-.126	-.163		.007
342.	-1.035	-.685	-.436	-.398	-.265	-.285	-.161	-.074	-.061	-.112	-.124	-.160		.007
344.	-1.042	-.685	-.432	-.404	-.258	-.280	-.166	-.062	-.068	-.104	-.119	-.156		.007
346.	-1.068	-.698	-.454	-.416	-.254	-.290	-.172	-.061	-.024	-.083	-.118	-.154		.007
348.	-1.097	-.735	-.463	-.404	-.276	-.290	-.178	-.062	.015	-.065	-.103	-.151		.006
350.	-1.139	-.759	-.471	-.396	-.274	-.285	-.172	-.058	.065	-.062	-.096	-.147		.006
352.	-1.154	-.743	-.446	-.388	-.255	-.279	-.168	-.055	.064	-.067	-.108	-.144		.007
354.	-1.103	-.700	-.421	-.381	-.262	-.274	-.165	-.054	.026	-.086	-.107	-.154		.016
356.	-1.010	-.656	-.413	-.373	-.258	-.287	-.173	-.053	-.046	-.103	-.119	-.164		.021
358.	-.922	-.619	-.405	-.366	-.238	-.283	-.174	-.052	-.089	-.120	-.131	-.174		.021

FLT 92 RUN40

AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/19.

FLT 93 RUN 10 TIME 54774.900

MU= .327 CLP= .00463 TEMP(U60)= 31.0 C = 87.75 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
0.	-1.652	-.807	-.491	-.393	-.280	-.250	-.171	-.090	.293	.065	.014	-.059		-.022
2.	-1.586	-.787	-.481	-.393	-.273	-.244	-.175	-.080	.264	.060	.003	-.057		-.021
4.	-1.521	-.768	-.470	-.383	-.267	-.238	-.170	-.080	.231	.045	-.011	-.056		-.014
6.	-1.471	-.749	-.458	-.380	-.272	-.232	-.166	-.075	.190	.039	-.024	-.096		-.007
8.	-1.400	-.732	-.447	-.378	-.267	-.241	-.162	-.077	.158	.021	-.037	-.120		-.007
10.	-1.332	-.705	-.437	-.369	-.261	-.238	-.168	-.079	.115	.004	-.049	-.118		-.007
12.	-1.267	-.693	-.428	-.367	-.255	-.248	-.168	-.077	.083	-.013	-.060	-.126		-.007
14.	-1.205	-.682	-.430	-.364	-.261	-.243	-.175	-.076	.062	-.028	-.071	-.133		-.006
16.	-1.146	-.667	-.423	-.364	-.257	-.239	-.173	-.074	.031	-.043	-.080	-.130		-.006
18.	-1.100	-.664	-.423	-.361	-.264	-.248	-.169	-.072	.006	-.057	-.083	-.132		.004
20.	-1.059	-.662	-.416	-.363	-.267	-.243	-.166	-.071	.002	-.068	-.103	-.147		.005
22.	-1.009	-.662	-.416	-.374	-.259	-.243	-.159	-.064	.003	-.080	-.114	-.149		.006
24.	-.985	-.666	-.414	-.368	-.258	-.248	-.167	-.063	-.052	-.096	-.117	-.150		.006
26.	-.953	-.667	-.418	-.371	-.267	-.247	-.169	-.067	-.077	-.109	-.128	-.162		.005
28.	-.934	-.666	-.416	-.375	-.268	-.252	-.178	-.065	-.092	-.120	-.145	-.169		.005
30.	-.916	-.659	-.421	-.378	-.268	-.247	-.183	-.064	-.106	-.131	-.158	-.176		.005
32.	-.887	-.681	-.429	-.381	-.268	-.249	-.180	-.060	-.120	-.130	-.156	-.180		.005
34.	-.871	-.685	-.432	-.386	-.264	-.259	-.176	-.053	-.120	-.140	-.159	-.177		.005
36.	-.854	-.695	-.436	-.396	-.259	-.260	-.178	-.052	-.146	-.151	-.166	-.174		.004
38.	-.829	-.699	-.438	-.395	-.255	-.256	-.181	-.051	-.156	-.158	-.173	-.171		.004
40.	-.811	-.712	-.443	-.403	-.277	-.253	-.176	-.048	-.155	-.156	-.170	-.187		.005
42.	-.792	-.726	-.446	-.405	-.284	-.258	-.179	-.042	-.169	-.169	-.177	-.197		.009
44.	-.775	-.733	-.449	-.407	-.280	-.256	-.182	-.046	-.176	-.174	-.184	-.195		.013
46.	-.756	-.734	-.453	-.410	-.283	-.253	-.179	-.041	-.178	-.174	-.189	-.192		.019
48.	-.740	-.728	-.465	-.415	-.288	-.261	-.176	-.037	-.189	-.184	-.187	-.220		.022
50.	-.723	-.717	-.459	-.425	-.285	-.258	-.173	-.036	-.193	-.186	-.201	-.216		.022
52.	-.709	-.710	-.465	-.432	-.288	-.268	-.176	-.032	-.198	-.190	-.197	-.207		.022
54.	-.697	-.703	-.467	-.435	-.297	-.264	-.179	-.037	-.203	-.201	-.206	-.221		.021
56.	-.681	-.695	-.465	-.439	-.296	-.271	-.178	-.037	-.201	-.204	-.206	-.226		.021
58.	-.671	-.688	-.469	-.449	-.307	-.268	-.176	-.029	-.199	-.209	-.212	-.233		.020

FLT 93 RUN10

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 93 RUN 10 TIME 54774.900

MU= .327 CLP= .00463 TEMP(U60)= 31.0 C = 87.75 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES				
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70 .90
60.	-.664	-.681	-.483	-.455	-.307	-.266	-.174	-.029	-.197	-.210	-.216	-.241	.020
62.	-.649	-.684	-.527	-.459	-.310	-.266	-.173	-.028	-.195	-.208	-.217	-.239	.020
64.	-.651	-.689	-.536	-.456	-.307	-.272	-.171	-.021	-.193	-.206	-.220	-.237	.028
66.	-.647	-.684	-.639	-.460	-.308	-.266	-.170	-.019	-.192	-.205	-.222	-.235	.028
68.	-.632	-.683	-.678	-.456	-.310	-.257	-.169	-.013	-.190	-.203	-.224	-.233	.027
70.	-.637	-.683	-.715	-.444	-.304	-.255	-.165	-.011	-.189	-.202	-.219	-.232	.027
72.	-.623	-.679	-.731	-.425	-.294	-.254	-.158	-.006	-.190	-.200	-.218	-.235	.027
74.	-.608	-.673	-.742	-.406	-.284	-.252	-.150	-.009	-.223	-.199	-.220	-.241	.027
76.	-.592	-.656	-.742	-.387	-.274	-.251	-.165	-.013	-.236	-.203	-.230	-.242	.027
78.	-.567	-.636	-.733	-.379	-.263	-.251	-.163	-.014	-.260	-.238	-.237	-.245	.030
80.	-.542	-.625	-.722	-.365	-.261	-.249	-.162	-.018	-.294	-.257	-.245	-.252	.035
82.	-.508	-.613	-.711	-.359	-.255	-.257	-.163	-.020	-.321	-.269	-.260	-.252	.034
84.	-.479	-.602	-.693	-.355	-.260	-.258	-.163	-.020	-.352	-.289	-.275	-.258	.034
86.	-.452	-.591	-.674	-.350	-.260	-.249	-.162	-.020	-.376	-.309	-.290	-.258	.039
88.	-.420	-.574	-.644	-.350	-.260	-.257	-.162	-.020	-.400	-.328	-.305	-.265	.042
90.	-.394	-.560	-.631	-.355	-.267	-.257	-.162	-.020	-.424	-.344	-.321	-.271	.058
92.	-.354	-.551	-.496	-.357	-.268	-.258	-.162	-.020	-.448	-.354	-.336	-.271	.064
94.	-.314	-.534	-.424	-.363	-.268	-.258	-.162	-.020	-.479	-.384	-.345	-.274	.064
96.	-.276	-.515	-.371	-.366	-.268	-.257	-.163	-.020	-.509	-.401	-.360	-.285	.065
98.	-.241	-.496	-.343	-.367	-.269	-.248	-.163	-.020	-.542	-.428	-.370	-.286	.065
100.	-.218	-.477	-.327	-.368	-.267	-.249	-.163	-.020	-.580	-.467	-.385	-.287	.065
102.	-.189	-.449	-.314	-.360	-.260	-.250	-.164	-.021	-.609	-.510	-.397	-.288	.065
104.	-.156	-.420	-.306	-.348	-.252	-.251	-.164	-.027	-.646	-.560	-.408	-.289	.065
106.	-.142	-.390	-.293	-.337	-.243	-.249	-.163	-.025	-.673	-.603	-.411	-.289	.065
108.	-.091	-.372	-.284	-.335	-.239	-.249	-.162	-.022	-.702	-.649	-.416	-.291	.057
110.	-.062	-.349	-.272	-.322	-.239	-.251	-.165	-.025	-.733	-.687	-.417	-.285	.067
112.	-.052	-.341	-.256	-.318	-.238	-.246	-.169	-.028	-.763	-.713	-.413	-.282	.067
114.	-.041	-.330	-.246	-.318	-.245	-.248	-.170	-.031	-.794	-.749	-.397	-.279	.067
116.	-.028	-.315	-.239	-.313	-.227	-.250	-.171	-.036	-.823	-.775	-.381	-.274	.068
118.	-.008	-.308	-.232	-.310	-.219	-.252	-.173	-.036	-.846	-.795	-.362	-.275	.069

FLT 93 RUN10



## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 93 RUN 10 TIME 54774.900

MU= .327 CLP= .00463 TEMP(U60)= 31.0 C = 87.75 F

X/C=	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
120.	.003	-.304	-.225	-.310	-.221	-.247	-.174	-.037	-.877	-.824	-.347	-.271		.069
122.	.015	-.312	-.226	-.308	-.223	-.237	-.176	-.037	-.898	-.851	-.333	-.273		.070
124.	.027	-.321	-.229	-.307	-.225	-.238	-.172	-.037	-.926	-.871	-.312	-.269		.071
126.	.033	-.331	-.222	-.302	-.228	-.230	-.171	-.038	-.957	-.892	-.298	-.271		.071
128.	.034	-.339	-.224	-.297	-.231	-.232	-.173	-.038	-.976	-.914	-.293	-.267		.072
130.	.034	-.343	-.218	-.292	-.225	-.234	-.175	-.039	-1.002	-.937	-.305	-.270		.073
132.	.035	-.348	-.221	-.292	-.228	-.238	-.177	-.046	-1.028	-.961	-.318	-.265		.074
134.	.035	-.353	-.219	-.290	-.231	-.241	-.171	-.048	-1.050	-.979	-.332	-.262		.075
136.	.035	-.353	-.208	-.292	-.232	-.242	-.173	-.049	-1.080	-.956	-.346	-.262		.076
138.	.035	-.353	-.211	-.284	-.228	-.236	-.175	-.049	-1.100	-.877	-.358	-.249		.077
140.	.029	-.354	-.212	-.282	-.231	-.240	-.177	-.042	-1.116	-.769	-.362	-.241		.079
142.	.029	-.359	-.216	-.293	-.232	-.241	-.167	-.046	-1.133	-.683	-.365	-.241		.081
144.	.003	-.379	-.221	-.289	-.236	-.236	-.167	-.045	-1.153	-.628	-.368	-.232		.082
146.	-.012	-.386	-.229	-.287	-.238	-.234	-.164	-.048	-1.174	-.586	-.361	-.228		.083
148.	-.023	-.391	-.232	-.301	-.235	-.230	-.166	-.040	-1.193	-.553	-.351	-.222		.079
150.	-.043	-.404	-.239	-.291	-.240	-.234	-.168	-.040	-1.202	-.528	-.348	-.218		.054
152.	-.066	-.419	-.247	-.296	-.238	-.231	-.170	-.048	-1.206	-.469	-.338	-.217		.046
154.	-.077	-.431	-.251	-.302	-.237	-.230	-.163	-.051	-1.192	-.476	-.322	-.198		.048
156.	-.129	-.449	-.268	-.312	-.233	-.235	-.160	-.046	-1.148	-.456	-.304	-.193		.045
158.	-.162	-.461	-.275	-.310	-.247	-.238	-.159	-.045	-1.100	-.441	-.301	-.198		.039
160.	-.203	-.465	-.282	-.319	-.246	-.232	-.165	-.048	-1.035	-.419	-.286	-.202		.039
162.	-.225	-.454	-.288	-.326	-.250	-.233	-.169	-.050	-.968	-.400	-.280	-.198		.040
164.	-.263	-.441	-.295	-.333	-.245	-.238	-.173	-.052	-.897	-.378	-.275	-.192		.040
166.	-.302	-.462	-.314	-.340	-.249	-.243	-.168	-.053	-.823	-.343	-.257	-.185		.034
168.	-.343	-.505	-.322	-.341	-.267	-.233	-.158	-.063	-.755	-.314	-.239	-.179		.030
170.	-.386	-.549	-.329	-.344	-.273	-.238	-.158	-.058	-.684	-.313	-.230	-.169		.031
172.	-.431	-.572	-.340	-.352	-.266	-.243	-.162	-.057	-.621	-.295	-.211	-.143		.032
174.	-.473	-.599	-.359	-.361	-.262	-.249	-.166	-.059	-.562	-.267	-.205	-.146		.032
176.	-.527	-.631	-.368	-.370	-.278	-.256	-.170	-.060	-.505	-.238	-.196	-.144		.033
178.	-.579	-.665	-.383	-.379	-.273	-.262	-.175	-.062	-.437	-.220	-.145	-.126		.034

FLT 93 RUN10

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 93 RUN 10 TIME 54774.900

MU= .327 CLP= .00463 TEMP(U60)= 31.0 C = 87.75 F

X/C=	UPPER SURFACE CP VALUES							LOWER SURFACE CP VALUES						
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
180.	-.649	-.684	-.402	-.389	-.280	-.264	-.179	-.063	-.359	-.193	-.125	-.116		.035
182.	-.727	-.684	-.420	-.399	-.288	-.256	-.184	-.065	-.277	-.160	-.099	-.091		.035
184.	-.808	-.655	-.440	-.410	-.295	-.263	-.188	-.067	-.210	-.125	-.090	-.062		.022
186.	-.893	-.685	-.460	-.420	-.303	-.270	-.193	-.068	-.143	-.105	-.068	-.064		.022
188.	-.983	-.739	-.490	-.432	-.311	-.277	-.194	-.070	-.073	-.068	-.045	-.065		.020
190.	-1.093	-.763	-.510	-.443	-.328	-.284	-.187	-.077	.001	-.028	-.022	-.067		.007
192.	-1.197	-.805	-.524	-.455	-.345	-.292	-.192	-.084	.078	-.005	.004	-.069		.038
194.	-1.305	-.849	-.538	-.468	-.343	-.287	-.197	-.076	.134	.037	.017	-.061		.003
196.	-1.438	-.895	-.568	-.480	-.346	-.285	-.202	-.078	.197	.061	.042	-.046		.008
198.	-1.577	-.935	-.588	-.494	-.356	-.293	-.198	-.030	.275	.091	.066	-.031		.003
200.	-1.724	-.971	-.622	-.507	-.366	-.301	-.194	-.082	.319	.137	.087	-.015		.009
202.	-1.877	-1.022	-.641	-.521	-.376	-.309	-.199	-.085	.388	.166	.109	-.027		.009
204.	-2.037	-1.063	-.659	-.536	-.386	-.317	-.204	-.087	.460	.196	.166	.002		.009
206.	-2.205	-1.105	-.677	-.550	-.378	-.302	-.210	-.089	.523	.228	.176	.004		.009
208.	-2.380	-1.148	-.695	-.565	-.407	-.307	-.199	-.092	.570	.273	.181	.004		.010
210.	-2.563	-1.197	-.714	-.581	-.397	-.288	-.199	-.094	.619	.310	.187	.006		.010
212.	-2.771	-1.233	-.734	-.597	-.406	-.295	-.204	-.097	.651	.318	.212	.026		-.007
214.	-3.001	-1.271	-.753	-.597	-.399	-.303	-.210	-.081	.659	.327	.218	.043		-.012
216.	-3.219	-1.305	-.773	-.607	-.426	-.311	-.192	-.081	.721	.336	.228	.045		-.012
218.	-3.410	-1.339	-.794	-.604	-.417	-.319	-.196	-.083	.765	.344	.252	.046		-.034
220.	-3.573	-1.374	-.814	-.615	-.421	-.320	-.201	-.085	.795	.376	.266	.047		-.037
222.	-3.761	-1.409	-.835	-.631	-.414	-.303	-.204	-.087	.815	.394	.290	.048		-.038
224.	-3.900	-1.444	-.856	-.623	-.424	-.310	-.184	-.090	.836	.403	.297	.049		-.039
226.	-4.064	-1.477	-.862	-.637	-.434	-.318	-.188	-.092	.856	.413	.304	.051		-.040
228.	-4.165	-1.482	-.869	-.651	-.432	-.310	-.193	-.094	.877	.423	.311	.052		-.041
230.	-4.297	-1.516	-.871	-.641	-.413	-.296	-.172	-.096	.897	.433	.319	.053		-.042
232.	-4.394	-1.543	-.880	-.656	-.409	-.303	-.141	-.098	.915	.443	.326	.054		-.050
234.	-4.490	-1.549	-.899	-.665	-.418	-.310	-.171	-.100	.894	.452	.333	.055		-.072
236.	-4.584	-1.570	-.917	-.656	-.426	-.316	-.117	-.102	.913	.462	.340	.057		-.073
238.	-4.676	-1.576	-.910	-.661	-.435	-.322	-.119	-.105	.932	.471	.347	.058		-.075

FLT 93 RUN10

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 93 RUN 10 TIME 54774.900

MU= .327 CLP= .00463 TEMP(U60)= 31.0 C = 87.75 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
240.	-4.754	-1.591	-.922	-.653	-.420	-.329	-.121	-.107	.939	.480	.353	.059		-.076
242.	-4.797	-1.597	-.908	-.653	-.420	-.303	-.123	-.108	.921	.489	.360	.060		-.078
244.	-4.836	-1.605	-.921	-.646	-.427	-.298	-.125	-.110	.936	.485	.366	.061		-.079
246.	-4.852	-1.590	-.901	-.641	-.405	-.303	-.128	-.112	.933	.465	.343	.062		-.080
248.	-4.835	-1.595	-.881	-.635	-.408	-.308	-.129	-.114	.918	.472	.346	.063		-.082
250.	-4.811	-1.592	-.893	-.644	-.413	-.312	-.131	-.115	.930	.479	.351	.062		-.083
252.	-4.806	-1.569	-.899	-.652	-.417	-.316	-.133	-.117	.942	.485	.355	.036		-.084
254.	-4.786	-1.574	-.879	-.659	-.393	-.320	-.134	-.118	.924	.490	.355	.036		-.085
256.	-4.741	-1.590	-.879	-.666	-.423	-.323	-.136	-.119	.912	.495	.330	.036		-.086
258.	-4.688	-1.533	-.859	-.672	-.397	-.326	-.137	-.120	.920	.500	.333	.037		-.086
260.	-4.664	-1.531	-.866	-.677	-.400	-.328	-.138	-.121	.927	.504	.336	.046		-.087
262.	-4.607	-1.541	-.871	-.681	-.402	-.330	-.139	-.122	.933	.507	.338	.067		-.087
264.	-4.533	-1.548	-.875	-.685	-.404	-.332	-.140	-.123	.937	.509	.339	.044		-.088
266.	-4.494	-1.552	-.860	-.654	-.406	-.333	-.140	-.129	.941	.511	.340	.007		-.088
268.	-4.455	-1.514	-.843	-.620	-.407	-.334	-.140	-.149	.895	.512	.341	.007		-.088
270.	-4.363	-1.515	-.843	-.589	-.407	-.334	-.140	-.124	.891	.512	.341	.007		-.088
272.	-4.309	-1.514	-.843	-.624	-.407	-.334	-.140	-.123	.890	.512	.341	.007		-.088
274.	-4.208	-1.501	-.841	-.653	-.406	-.333	-.140	-.135	.888	.511	.320	.007		-.088
276.	-4.146	-1.462	-.838	-.651	-.404	-.332	-.140	-.155	.885	.509	.305	.007		-.088
278.	-4.078	-1.455	-.834	-.648	-.402	-.330	-.139	-.154	.881	.507	.304	.007		-.087
280.	-4.005	-1.446	-.829	-.644	-.400	-.328	-.138	-.153	.876	.504	.302	.007		-.087
282.	-3.914	-1.436	-.823	-.639	-.397	-.326	-.137	-.152	.869	.500	.300	.007		-.086
284.	-3.817	-1.423	-.816	-.633	-.394	-.323	-.136	-.151	.862	.496	.297	.007		-.086
286.	-3.779	-1.409	-.808	-.598	-.390	-.320	-.134	-.149	.853	.491	.294	.007		-.085
288.	-3.736	-1.393	-.798	-.587	-.385	-.316	-.133	-.148	.843	.485	.291	.007		-.084
290.	-3.689	-1.376	-.789	-.578	-.380	-.312	-.131	-.146	.854	.479	.287	.007		-.083
292.	-3.639	-1.357	-.778	-.560	-.375	-.308	-.130	-.144	.870	.473	.283	.007		-.082
294.	-3.586	-1.337	-.766	-.584	-.370	-.303	-.128	-.142	.857	.466	.279	.006		-.080
296.	-3.529	-1.345	-.754	-.586	-.364	-.299	-.126	-.139	.844	.458	.275	.006		-.079
298.	-3.469	-1.332	-.741	-.598	-.358	-.294	-.123	-.137	.829	.451	.270	.006		-.078

FLT 93 RUN10

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 93 RUN 10 TIME 54774.900

MU= .327 CLP= .00463 TEMP(U60)= 31.0 C = 87.75 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
300.	-3.378	-1.308	-.728	-.595	-.351	-.288	-.121	-.135	.814	.442	.265	-.007		-.076
302.	-3.304	-1.283	-.726	-.584	-.345	-.283	-.119	-.132	.799	.434	.260	-.046		-.075
304.	-3.239	-1.258	-.732	-.572	-.338	-.277	-.117	-.130	.784	.371	.255	-.045		-.073
306.	-3.173	-1.232	-.717	-.560	-.331	-.272	-.114	-.127	.767	.345	.250	-.034		-.072
308.	-3.072	-1.205	-.701	-.549	-.335	-.278	-.125	-.124	.751	.338	.245	-.029		-.070
310.	-3.001	-1.182	-.686	-.536	-.345	-.297	-.197	-.121	.735	.331	.239	-.042		-.069
312.	-2.933	-1.186	-.670	-.524	-.337	-.290	-.193	-.119	.718	.292	.234	-.041		-.067
314.	-2.863	-1.153	-.655	-.512	-.329	-.283	-.188	-.116	.701	.283	.228	-.040		-.065
316.	-2.763	-1.131	-.639	-.500	-.321	-.276	-.184	-.113	.685	.276	.223	-.053		-.064
318.	-2.696	-1.103	-.643	-.488	-.313	-.270	-.180	-.110	.668	.269	.218	-.060		-.063
320.	-2.629	-1.076	-.634	-.476	-.306	-.263	-.186	-.118	.651	.263	.212	-.058		-.061
322.	-2.563	-1.049	-.618	-.470	-.315	-.277	-.196	-.127	.635	.251	.156	-.057		-.060
324.	-2.497	-1.022	-.602	-.474	-.331	-.281	-.191	-.124	.619	.221	.134	-.071		-.058
326.	-2.432	-1.021	-.609	-.462	-.310	-.273	-.186	-.120	.603	.215	.131	-.073		-.057
328.	-2.369	-1.023	-.595	-.459	-.316	-.266	-.181	-.117	.587	.209	.128	-.071		-.055
330.	-2.306	-.995	-.579	-.458	-.311	-.259	-.176	-.114	.559	.204	.105	-.070		-.041
332.	-2.258	-.985	-.586	-.457	-.303	-.252	-.187	-.111	.538	.198	.101	-.068		-.045
334.	-2.212	-.985	-.572	-.454	-.295	-.271	-.189	-.108	.541	.193	.098	-.083		-.051
336.	-2.167	-.967	-.576	-.453	-.307	-.265	-.184	-.105	.512	.176	.095	-.081		-.049
338.	-2.135	-.959	-.560	-.448	-.299	-.258	-.179	-.102	.484	.159	.093	-.079		-.048
340.	-2.089	-.939	-.550	-.436	-.293	-.251	-.174	-.100	.471	.155	.088	-.077		-.047
342.	-2.032	-.932	-.555	-.438	-.301	-.248	-.188	-.097	.459	.151	.070	-.075		-.046
344.	-2.012	-.930	-.554	-.444	-.297	-.262	-.184	-.094	.446	.132	.068	-.073		-.044
346.	-2.006	-.927	-.539	-.435	-.303	-.260	-.179	-.092	.434	.121	.067	-.071		-.043
348.	-1.980	-.904	-.532	-.438	-.295	-.270	-.192	-.089	.423	.118	.059	-.069		-.042
350.	-1.970	-.901	-.537	-.443	-.293	-.263	-.187	-.087	.412	.115	.047	-.067		-.025
352.	-1.962	-.898	-.531	-.432	-.295	-.256	-.182	-.085	.401	.112	.046	-.065		-.024
354.	-1.953	-.894	-.527	-.421	-.295	-.258	-.177	-.083	.390	.109	.045	-.064		-.023
356.	-1.924	-.888	-.530	-.425	-.295	-.263	-.173	-.080	.380	.106	.044	-.062		-.023
358.	-1.893	-.865	-.523	-.414	-.296	-.256	-.173	-.078	.370	.103	.035	-.060		-.022

FLT 93 RUN10

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 94 RUN 3 TIME 50625.200

MU= .168 CLP= .00512 TEMP(U60)= 28.6 C = 83.42 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES						
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90	
0.	-1.916	-.880	-.541	-.430	-.279	-.267	-.167	-.006	.265	.042	.002	-.091		.028	
2.	-1.832	-.861	-.536	-.438	-.287	-.281	-.176	-.006	.237	.020	-.013	-.102		.017	
4.	-1.759	-.852	-.529	-.433	-.290	-.279	-.183	-.011	.210	.005	-.061	-.128		.022	
6.	-1.688	-.841	-.523	-.427	-.286	-.275	-.183	-.013	.195	.004	-.062	-.127		.013	
8.	-1.618	-.831	-.516	-.419	-.297	-.271	-.180	-.013	.161	.004	-.075	-.139		.003	
10.	-1.543	-.807	-.511	-.412	-.280	-.268	-.178	-.045	.133	.006	-.074	-.149		.003	
12.	-1.471	-.804	-.517	-.407	-.288	-.266	-.173	-.048	.116	-.022	-.072	-.146		.003	
14.	-1.409	-.799	-.511	-.411	-.284	-.262	-.184	-.047	.081	-.055	-.085	-.144		.015	
16.	-1.342	-.775	-.505	-.410	-.281	-.261	-.184	-.046	.051	-.062	-.098	-.145		.005	
18.	-1.284	-.763	-.499	-.405	-.278	-.275	-.181	-.046	.044	-.072	-.110	-.152		.003	
20.	-1.247	-.769	-.493	-.401	-.278	-.271	-.179	-.045	.015	-.089	-.122	-.157		.003	
22.	-1.201	-.747	-.487	-.407	-.281	-.268	-.192	-.045	-.011	-.093	-.130	-.172		.016	
24.	-1.152	-.738	-.482	-.404	-.272	-.270	-.189	-.044	-.031	-.104	-.133	-.170		.003	
26.	-1.104	-.730	-.477	-.400	-.279	-.274	-.187	-.044	-.066	-.120	-.145	-.173		.003	
28.	-1.073	-.722	-.472	-.396	-.276	-.266	-.185	-.043	-.088	-.135	-.161	-.177		.006	
30.	-1.029	-.714	-.467	-.396	-.278	-.274	-.183	-.043	-.106	-.136	-.174	-.181		.028	
32.	-1.002	-.708	-.462	-.395	-.278	-.271	-.182	-.043	-.125	-.152	-.173	-.191		.028	
34.	-.972	-.698	-.456	-.391	-.267	-.269	-.181	-.043	-.158	-.162	-.176	-.199		.028	
36.	-.931	-.692	-.452	-.388	-.263	-.267	-.176	-.039	-.176	-.177	-.185	-.202		.028	
38.	-.903	-.685	-.448	-.384	-.260	-.264	-.174	-.038	-.192	-.190	-.196	-.213		.024	
40.	-.865	-.679	-.444	-.381	-.266	-.262	-.172	-.038	-.209	-.190	-.198	-.219		.020	
42.	-.841	-.673	-.440	-.380	-.268	-.270	-.176	-.038	-.226	-.203	-.205	-.217		.027	
44.	-.818	-.668	-.436	-.386	-.266	-.273	-.182	-.037	-.242	-.215	-.215	-.215		.027	
46.	-.795	-.662	-.433	-.383	-.272	-.271	-.181	-.037	-.258	-.216	-.216	-.213		.027	
48.	-.768	-.651	-.429	-.381	-.264	-.269	-.179	-.037	-.269	-.226	-.223	-.212		.027	
50.	-.732	-.639	-.427	-.379	-.259	-.267	-.178	-.036	-.283	-.233	-.224	-.210		.027	
52.	-.689	-.627	-.423	-.374	-.269	-.265	-.178	-.038	-.334	-.257	-.244	-.209		.026	
54.	-.644	-.615	-.420	-.379	-.257	-.263	-.176	-.037	-.376	-.269	-.243	-.217		.033	
56.	-.624	-.620	-.419	-.382	-.265	-.275	-.174	-.036	-.395	-.277	-.252	-.216		.037	
58.	-.635	-.639	-.428	-.378	-.266	-.275	-.175	-.038	-.378	-.270	-.253	-.215		.037	

FLT 94 RUN3

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 94 RUN 3 TIME 50625.200

MU= .168 CLP= .00512 TEMP(U60)= 28.6 C = 83.42 F

Y/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
60.	-.653	-.664	-.436	-.378	-.274	-.274	-.173	-.036	-.349	-.253	-.238	-.203		.037
62.	-.674	-.670	-.435	-.377	-.273	-.272	-.171	-.009	-.331	-.245	-.236	-.202		.037
64.	-.692	-.668	-.433	-.375	-.273	-.255	-.172	-.007	-.313	-.245	-.227	-.202		.036
66.	-.694	-.664	-.431	-.376	-.272	-.254	-.172	-.007	-.314	-.243	-.228	-.201		.036
68.	-.682	-.652	-.429	-.370	-.271	-.253	-.171	-.007	-.320	-.244	-.236	-.202		.036
70.	-.663	-.633	-.426	-.367	-.271	-.254	-.173	-.040	-.328	-.250	-.236	-.207		.035
72.	-.645	-.628	-.425	-.366	-.270	-.266	-.168	-.034	-.343	-.252	-.232	-.198		.036
74.	-.628	-.626	-.429	-.389	-.277	-.266	-.167	-.034	-.346	-.252	-.231	-.197		.036
76.	-.633	-.640	-.440	-.388	-.277	-.264	-.167	-.035	-.347	-.243	-.225	-.197		.036
78.	-.651	-.652	-.445	-.387	-.279	-.263	-.170	-.039	-.292	-.217	-.208	-.197		.035
80.	-.691	-.690	-.450	-.397	-.281	-.263	-.168	-.037	-.239	-.199	-.200	-.196		.035
82.	-.761	-.704	-.455	-.396	-.282	-.262	-.168	-.037	-.190	-.185	-.195	-.196		.035
84.	-.804	-.729	-.454	-.395	-.276	-.262	-.168	-.037	-.171	-.171	-.189	-.191		.035
86.	-.832	-.740	-.454	-.395	-.281	-.262	-.167	-.027	-.170	-.170	-.189	-.192		.033
88.	-.845	-.740	-.461	-.395	-.287	-.262	-.167	-.007	-.155	-.170	-.189	-.196		.024
90.	-.842	-.735	-.456	-.395	-.286	-.262	-.167	-.007	-.170	-.170	-.189	-.196		.024
92.	-.831	-.723	-.453	-.395	-.279	-.262	-.167	-.007	-.172	-.183	-.189	-.189		.024
94.	-.823	-.714	-.444	-.395	-.276	-.262	-.167	-.007	-.189	-.183	-.189	-.193		.028
96.	-.814	-.709	-.443	-.392	-.276	-.262	-.168	-.007	-.205	-.186	-.189	-.196		.035
98.	-.801	-.696	-.443	-.386	-.276	-.262	-.168	-.007	-.218	-.197	-.198	-.196		.035
100.	-.787	-.684	-.444	-.385	-.277	-.252	-.168	-.007	-.223	-.197	-.200	-.196		.035
102.	-.774	-.670	-.433	-.383	-.277	-.249	-.168	-.007	-.234	-.201	-.201	-.197		.035
104.	-.760	-.664	-.433	-.375	-.267	-.262	-.167	-.005	-.240	-.210	-.199	-.197		.036
106.	-.747	-.659	-.423	-.364	-.266	-.266	-.167	-.018	-.251	-.211	-.200	-.197		.036
108.	-.735	-.647	-.424	-.365	-.267	-.266	-.168	-.032	-.251	-.211	-.200	-.198		.036
110.	-.715	-.635	-.415	-.369	-.268	-.267	-.168	-.027	-.252	-.212	-.201	-.199		.036
112.	-.705	-.634	-.415	-.372	-.268	-.254	-.169	-.008	-.271	-.214	-.202	-.200		.036
114.	-.700	-.627	-.407	-.374	-.261	-.254	-.162	-.006	-.297	-.216	-.205	-.201		.036
116.	-.698	-.616	-.409	-.375	-.260	-.255	-.161	-.007	-.306	-.217	-.206	-.199		.036
118.	-.691	-.616	-.408	-.380	-.252	-.256	-.162	-.036	-.307	-.218	-.207	-.184		.036

FLT 94 RUN3

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 94 RUN 3 TIME 50625.200

MU= .168 CLP= .00512 TEMP(U60)= 28.6 C = 83.42 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES						
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90	
AZIMUTH															
120.	-.681	-.608	-.399	-.372	-.253	-.258	-.163	-.008	-.310	-.220	-.208	-.185		.036	
122.	-.668	-.609	-.392	-.371	-.256	-.259	-.166	-.010	-.323	-.221	-.211	-.186		.036	
124.	-.669	-.599	-.385	-.364	-.256	-.257	-.164	-.007	-.329	-.222	-.210	-.187		.037	
126.	-.660	-.589	-.373	-.364	-.258	-.251	-.166	-.010	-.331	-.223	-.212	-.188		.037	
128.	-.663	-.578	-.375	-.367	-.259	-.260	-.167	-.039	-.334	-.225	-.209	-.189		.037	
130.	-.653	-.581	-.378	-.358	-.261	-.251	-.168	-.039	-.336	-.226	-.204	-.186		.038	
132.	-.642	-.572	-.381	-.361	-.258	-.253	-.169	-.040	-.339	-.228	-.205	-.182		.038	
134.	-.647	-.574	-.383	-.360	-.253	-.255	-.170	-.040	-.341	-.230	-.207	-.173		.038	
136.	-.635	-.565	-.379	-.366	-.254	-.257	-.171	-.030	-.343	-.230	-.207	-.174		.039	
138.	-.642	-.571	-.378	-.358	-.257	-.251	-.172	-.005	-.329	-.234	-.203	-.170		.039	
140.	-.648	-.572	-.381	-.362	-.260	-.245	-.175	-.020	-.332	-.221	-.200	-.167		.039	
142.	-.654	-.567	-.376	-.364	-.254	-.247	-.176	-.041	-.333	-.223	-.202	-.169		.040	
144.	-.661	-.582	-.374	-.352	-.262	-.249	-.173	-.043	-.321	-.224	-.197	-.171		.040	
146.	-.665	-.606	-.378	-.355	-.257	-.252	-.173	-.042	-.315	-.209	-.193	-.163		.035	
148.	-.671	-.618	-.381	-.355	-.255	-.255	-.172	-.039	-.289	-.211	-.184	-.162		.029	
150.	-.678	-.634	-.385	-.350	-.258	-.245	-.167	-.020	-.292	-.210	-.183	-.164		.029	
152.	-.685	-.641	-.389	-.354	-.249	-.243	-.169	-.027	-.295	-.200	-.185	-.166		.029	
154.	-.692	-.648	-.393	-.358	-.250	-.246	-.171	-.041	-.291	-.202	-.176	-.167		.030	
156.	-.700	-.646	-.384	-.355	-.253	-.248	-.173	-.041	-.282	-.198	-.177	-.158		.033	
158.	-.703	-.636	-.388	-.353	-.255	-.251	-.175	-.033	-.277	-.190	-.179	-.148		.043	
160.	-.725	-.615	-.393	-.357	-.245	-.254	-.177	-.011	-.259	-.184	-.180	-.150		.035	
162.	-.742	-.599	-.397	-.361	-.248	-.257	-.167	-.005	-.242	-.177	-.157	-.152		.031	
164.	-.751	-.588	-.402	-.366	-.250	-.260	-.166	-.005	-.235	-.179	-.159	-.152		.031	
166.	-.772	-.591	-.407	-.370	-.253	-.262	-.168	-.039	-.226	-.172	-.159	-.143		.032	
168.	-.788	-.593	-.412	-.372	-.257	-.248	-.170	-.044	-.207	-.166	-.149	-.145		.032	
170.	-.809	-.609	-.420	-.375	-.261	-.250	-.172	-.006	-.204	-.160	-.149	-.147		.033	
172.	-.825	-.617	-.425	-.380	-.268	-.252	-.180	-.013	-.193	-.157	-.144	-.150		.032	
174.	-.840	-.625	-.429	-.376	-.267	-.255	-.183	-.015	-.173	-.146	-.142	-.152		.032	
176.	-.864	-.629	-.433	-.379	-.258	-.259	-.184	-.053	-.150	-.139	-.132	-.144		.033	
178.	-.878	-.637	-.439	-.371	-.253	-.264	-.181	-.041	-.147	-.140	-.124	-.129		.033	

FLT 94 RUN3

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/21.

FLT 94 RUN 3 TIME 50625.200

MU= .168 CLP= .00512 TEMP(U60)= 28.6 C = 83.42 F

X/C=	UPPER SURFACE CP VALUES										LOWER SURFACE CP VALUES			
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
180.	-.908	-.645	-.444	-.375	-.246	-.267	-.181	-.006	-.129	-.141	-.117	-.130		.021
182.	-.921	-.654	-.452	-.390	-.249	-.271	-.170	-.006	-.108	-.126	-.119	-.126		.035
184.	-.958	-.667	-.459	-.395	-.255	-.273	-.173	-.019	-.089	-.131	-.116	-.114		.035
186.	-.991	-.676	-.465	-.401	-.261	-.276	-.180	-.057	-.089	-.114	-.104	-.110		.035
188.	-1.006	-.685	-.471	-.407	-.265	-.280	-.183	-.058	-.066	-.115	-.099	-.112		.035
190.	-1.039	-.694	-.479	-.414	-.268	-.271	-.185	-.059	-.043	-.096	-.100	-.122		.036
192.	-1.061	-.703	-.482	-.402	-.273	-.264	-.189	-.042	-.019	-.099	-.093	-.130		.036
194.	-1.106	-.714	-.487	-.395	-.272	-.269	-.189	-.013	.011	-.090	-.083	-.098		.037
196.	-1.126	-.738	-.494	-.400	-.273	-.274	-.186	-.006	.037	-.073	-.069	-.087		.039
198.	-1.164	-.748	-.500	-.405	-.277	-.278	-.189	-.006	.057	-.074	-.066	-.088		.039
200.	-1.203	-.757	-.507	-.411	-.281	-.281	-.191	-.006	.065	-.069	-.067	-.089		.040
202.	-1.234	-.767	-.513	-.416	-.284	-.285	-.182	-.007	.093	-.054	-.053	-.103		.040
204.	-1.260	-.777	-.520	-.422	-.288	-.289	-.177	-.007	.111	-.032	-.051	-.107		.030
206.	-1.300	-.787	-.527	-.430	-.275	-.293	-.179	-.007	.123	.012	-.052	-.093		.045
208.	-1.343	-.799	-.536	-.442	-.295	-.296	-.182	-.007	.152	.011	-.035	-.093		.024
210.	-1.387	-.812	-.544	-.444	-.283	-.299	-.187	-.010	.166	.007	-.039	-.080		.016
212.	-1.418	-.824	-.553	-.445	-.290	-.301	-.193	-.015	.180	.004	-.025	-.062		.023
214.	-1.467	-.835	-.559	-.450	-.297	-.304	-.199	-.021	.210	.002	-.027	-.084		.022
216.	-1.503	-.845	-.566	-.456	-.300	-.306	-.202	-.021	.225	.002	-.008	-.085		.007
218.	-1.556	-.855	-.573	-.461	-.307	-.285	-.204	-.022	.245	.017	.008	-.086		.037
220.	-1.603	-.886	-.579	-.466	-.323	-.288	-.207	-.022	.273	.027	.008	-.087		.042
222.	-1.653	-.899	-.584	-.454	-.311	-.292	-.209	-.022	.290	.044	.008	-.088		.006
224.	-1.693	-.901	-.586	-.456	-.311	-.296	-.211	-.021	.299	.060	.011	-.082		.003
226.	-1.715	-.911	-.593	-.461	-.307	-.302	-.202	-.008	.328	.064	.026	-.069		.006
228.	-1.781	-.945	-.599	-.466	-.311	-.305	-.201	-.008	.363	.065	.039	-.070		.007
230.	-1.829	-.955	-.605	-.470	-.314	-.308	-.187	-.008	.371	.088	.040	-.070		.024
232.	-1.875	-.964	-.623	-.475	-.317	-.311	-.203	-.008	.403	.092	.040	-.062		.009
234.	-1.949	-.973	-.640	-.486	-.320	-.314	-.187	-.008	.409	.118	.040	-.063		.027
236.	-1.997	-.989	-.646	-.491	-.324	-.316	-.190	-.010	.441	.116	.050	-.073		.022
238.	-2.046	-1.019	-.652	-.495	-.329	-.318	-.195	-.013	.446	.144	.058	-.074		.011

FLT 94 RUN3



AIPFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 94 RUN 3 TIME 50625.200

MU= .168 CLP= .00512 TEMP(U60)= 28.6 C = 83.42 F

Y/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
240.	-2.121	-1.034	-.657	-.497	-.331	-.320	-.196	-.013	.479	.147	.058	-.075		.020
242.	-2.190	-1.061	-.660	-.495	-.334	-.323	-.198	-.014	.496	.174	.044	-.076		.013
244.	-2.240	-1.066	-.664	-.501	-.334	-.326	-.197	-.011	.585	.179	.056	-.061		.019
246.	-2.316	-1.075	-.690	-.510	-.335	-.329	-.196	-.008	.589	.184	.080	-.056		.015
248.	-2.392	-1.083	-.698	-.513	-.340	-.330	-.200	-.011	.590	.204	.099	-.058		.018
250.	-2.476	-1.102	-.702	-.516	-.343	-.331	-.203	-.014	.593	.206	.103	-.058		.006
252.	-2.531	-1.137	-.706	-.518	-.344	-.333	-.204	-.014	.596	.207	.084	-.059		.006
254.	-2.684	-1.155	-.710	-.531	-.346	-.309	-.205	-.014	.599	.218	.123	-.059		.019
256.	-2.788	-1.177	-.736	-.545	-.347	-.333	-.206	-.014	.616	.237	.126	-.059		.028
258.	-2.875	-1.193	-.739	-.547	-.371	-.337	-.206	-.014	.637	.250	.127	-.040		.013
260.	-2.962	-1.215	-.741	-.548	-.350	-.338	-.207	-.014	.656	.267	.149	-.040		.006
262.	-3.063	-1.228	-.743	-.550	-.351	-.339	-.207	-.014	.674	.282	.149	-.040		.006
264.	-3.143	-1.230	-.744	-.551	-.351	-.338	-.208	-.014	.695	.296	.153	-.037		-.012
266.	-3.209	-1.254	-.745	-.551	-.355	-.312	-.208	-.014	.710	.297	.172	-.020		.002
268.	-3.274	-1.261	-.746	-.552	-.371	-.336	-.208	-.014	.733	.316	.177	-.020		.006
270.	-3.315	-1.261	-.746	-.552	-.352	-.310	-.208	-.014	.744	.326	.194	-.020		.006
272.	-3.345	-1.261	-.746	-.552	-.352	-.310	-.184	-.014	.744	.326	.194	-.020		.006
274.	-3.323	-1.233	-.745	-.532	-.352	-.309	-.184	-.014	.717	.325	.194	-.020		.006
276.	-3.261	-1.173	-.733	-.508	-.343	-.309	-.183	-.014	.681	.302	.185	-.020		-.016
278.	-3.109	-1.084	-.693	-.498	-.327	-.308	-.183	-.014	.615	.247	.153	-.038		.006
280.	-2.853	-1.022	-.655	-.482	-.325	-.308	-.182	-.013	.609	.217	.098	-.059		.006
282.	-2.575	-.990	-.629	-.459	-.312	-.294	-.179	-.010	.477	.157	.063	-.069		.007
284.	-2.323	-.927	-.615	-.450	-.301	-.289	-.181	-.014	.403	.125	.049	-.079		.006
286.	-2.133	-.874	-.596	-.448	-.298	-.305	-.179	-.012	.403	.099	.041	-.077		.006
288.	-2.001	-.870	-.586	-.446	-.295	-.304	-.184	-.032	.370	.099	.029	-.089		.007
290.	-1.890	-.866	-.583	-.443	-.293	-.303	-.198	-.070	.368	.098	.021	-.095		-.001
292.	-1.880	-.879	-.598	-.447	-.292	-.301	-.197	-.069	.366	.098	.021	-.095		-.016
294.	-1.868	-.921	-.599	-.460	-.290	-.299	-.196	-.069	.371	.097	.021	-.094		-.015
296.	-1.856	-.931	-.595	-.456	-.305	-.297	-.195	-.069	.393	.097	.021	-.094		-.005
298.	-1.843	-.937	-.591	-.453	-.308	-.295	-.193	-.068	.391	.096	.038	-.093		.006

FLT 94 RUN3

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 94 RUN 3 TIME 50625.200

MU= .168 CLP= .00512 TEMP(U60)= 28.6 C = 83.42 F

X/C=	UPPER SURFACE CP VALUES							LOWER SURFACE CP VALUES						
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
300.	-1.851	-.945	-.608	-.450	-.306	-.293	-.192	-.068	.388	.095	.041	-.092		-.005
302.	-1.893	-.937	-.605	-.446	-.303	-.315	-.190	-.067	.385	.094	.041	-.091		-.015
304.	-1.896	-.929	-.599	-.453	-.301	-.317	-.189	-.025	.394	.104	.041	-.091		-.015
306.	-1.903	-.937	-.596	-.459	-.298	-.314	-.187	-.008	.409	.108	.040	-.090		-.001
308.	-1.904	-.939	-.611	-.455	-.296	-.311	-.185	-.008	.405	.092	.040	-.089		.006
310.	-1.902	-.948	-.605	-.450	-.294	-.308	-.184	-.008	.401	.091	.040	-.088		.008
312.	-1.911	-.946	-.599	-.446	-.311	-.305	-.182	-.008	.397	.090	.037	-.087		-.010
314.	-1.919	-.936	-.598	-.456	-.308	-.302	-.180	-.008	.393	.089	.019	-.086		-.014
316.	-1.907	-.947	-.603	-.456	-.304	-.299	-.178	-.007	.409	.104	.023	-.086		-.014
318.	-1.926	-.962	-.609	-.457	-.301	-.300	-.197	-.007	.414	.112	.038	-.085		-.014
320.	-1.959	-.957	-.617	-.469	-.304	-.318	-.195	-.008	.407	.108	.031	-.084		-.014
322.	-1.969	-.969	-.619	-.466	-.317	-.314	-.197	-.012	.402	.106	.021	-.084		-.014
324.	-1.994	-.983	-.623	-.478	-.314	-.310	-.195	-.012	.421	.105	.033	-.083		.004
326.	-2.045	-.995	-.616	-.474	-.310	-.306	-.192	-.012	.420	.124	.033	-.082		-.012
328.	-2.095	-1.005	-.608	-.469	-.306	-.303	-.190	-.012	.490	.126	.032	-.081		.007
330.	-2.170	-.995	-.601	-.480	-.302	-.299	-.188	-.011	.491	.124	.032	-.080		.017
332.	-2.217	-1.007	-.618	-.477	-.299	-.295	-.185	-.011	.485	.123	.032	-.079		-.006
334.	-2.263	-1.014	-.638	-.492	-.316	-.292	-.183	-.011	.479	.121	.031	-.078		.018
336.	-2.305	-1.030	-.636	-.486	-.329	-.287	-.182	-.013	.470	.138	.029	-.078		.010
338.	-2.323	-1.033	-.642	-.483	-.326	-.283	-.182	-.015	.464	.137	.027	-.077		.015
340.	-2.335	-1.027	-.638	-.490	-.334	-.294	-.179	-.015	.458	.135	.039	-.076		.004
342.	-2.328	-1.027	-.630	-.483	-.322	-.299	-.177	-.015	.452	.133	.043	-.075		.004
344.	-2.314	-1.014	-.622	-.473	-.314	-.295	-.184	-.015	.447	.131	.042	-.074		.004
346.	-2.282	-.999	-.611	-.459	-.309	-.291	-.180	-.015	.442	.126	.028	-.073		.021
348.	-2.251	-.983	-.603	-.453	-.301	-.289	-.166	-.009	.439	.113	.031	-.070		.010
350.	-2.221	-.970	-.595	-.447	-.311	-.285	-.173	-.006	.434	.105	.031	-.083		.018
352.	-2.192	-.957	-.587	-.450	-.308	-.282	-.164	-.006	.398	.091	.031	-.082		.037
354.	-2.152	-.945	-.579	-.442	-.288	-.278	-.170	-.006	.353	.081	.015	-.081		.015
356.	-2.091	-.932	-.572	-.442	-.285	-.274	-.172	-.006	.337	.069	.015	-.081		.005
358.	-2.023	-.908	-.565	-.441	-.297	-.271	-.170	-.006	.308	.056	.014	-.095		.005

FLT 94 RUN3

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT 94 RUN 7 TIME 51109.200

MU= .247 CLP= .00520 TEMP(U60)= 29.7 C = 85.47 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
0.	-1.847	-.836	-.524	-.411	-.278	-.261	-.168	-.049	.320	.087	-.008	-.074		.024
2.	-1.739	-.820	-.515	-.404	-.272	-.256	-.165	-.048	.291	.066	-.023	-.090		.028
4.	-1.715	-.804	-.503	-.402	-.267	-.251	-.162	-.047	.264	.043	-.019	-.097		.038
6.	-1.642	-.787	-.495	-.402	-.259	-.260	-.157	-.043	.240	.048	-.010	-.094		.027
8.	-1.571	-.776	-.487	-.399	-.255	-.262	-.151	-.042	.211	.024	-.012	-.093		.021
10.	-1.497	-.762	-.478	-.401	-.264	-.256	-.168	-.045	.181	.010	-.056	-.121		.036
12.	-1.446	-.756	-.483	-.399	-.274	-.252	-.174	-.052	.142	.010	-.077	-.125		.036
14.	-1.384	-.752	-.489	-.400	-.272	-.262	-.177	-.048	.125	.009	-.069	-.134		.028
16.	-1.332	-.743	-.481	-.399	-.267	-.261	-.174	-.043	.116	-.003	-.039	-.132		.021
18.	-1.292	-.742	-.474	-.399	-.262	-.257	-.171	-.042	.094	-.039	-.099	-.130		.021
20.	-1.253	-.740	-.479	-.395	-.271	-.252	-.178	-.041	.073	-.046	-.110	-.139		.012
22.	-1.217	-.745	-.472	-.398	-.267	-.248	-.179	-.041	.052	-.062	-.109	-.138		.017
24.	-1.181	-.739	-.467	-.404	-.265	-.230	-.178	-.042	.032	-.071	-.121	-.157		.019
26.	-1.147	-.739	-.470	-.402	-.262	-.256	-.176	-.042	.013	-.073	-.121	-.156		.019
28.	-1.113	-.731	-.463	-.404	-.271	-.254	-.173	-.042	-.005	-.092	-.131	-.162		.019
30.	-1.081	-.733	-.460	-.401	-.277	-.264	-.171	-.041	-.023	-.106	-.143	-.162		.019
32.	-1.049	-.725	-.456	-.396	-.273	-.261	-.168	-.040	-.041	-.110	-.159	-.173		.018
34.	-1.007	-.728	-.468	-.390	-.269	-.260	-.166	-.040	-.058	-.119	-.157	-.185		.018
36.	-.963	-.733	-.461	-.381	-.269	-.269	-.176	-.039	-.087	-.132	-.158	-.190		.018
38.	-.945	-.736	-.460	-.396	-.277	-.265	-.173	-.038	-.105	-.143	-.167	-.199		.018
40.	-.919	-.728	-.466	-.403	-.279	-.263	-.169	-.036	-.121	-.144	-.174	-.196		.029
42.	-.893	-.746	-.466	-.409	-.276	-.265	-.167	-.035	-.136	-.154	-.183	-.194		.028
44.	-.869	-.751	-.467	-.405	-.278	-.271	-.168	-.035	-.135	-.166	-.192	-.192		.028
46.	-.856	-.756	-.474	-.415	-.280	-.268	-.175	-.034	-.149	-.178	-.195	-.195		.028
48.	-.835	-.763	-.474	-.419	-.285	-.272	-.177	-.035	-.164	-.179	-.200	-.202		.027
50.	-.814	-.768	-.477	-.416	-.293	-.276	-.184	-.036	-.164	-.189	-.202	-.204		.027
52.	-.804	-.774	-.482	-.417	-.295	-.273	-.182	-.036	-.178	-.189	-.207	-.208		.026
54.	-.781	-.774	-.480	-.417	-.291	-.271	-.180	-.030	-.188	-.197	-.214	-.208		.026
56.	-.764	-.768	-.477	-.422	-.295	-.268	-.177	-.014	-.190	-.198	-.214	-.213		.026
58.	-.754	-.762	-.481	-.420	-.289	-.266	-.177	-.006	-.204	-.210	-.222	-.214		.031

FLT 94 RUN7

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT 94 RUN 7 TIME 51109.200

MU= .247 CLP= .00520 TEMP(U60)= 29.7 C = 85.47 F

X/C=	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
60.	-.739	-.755	-.479	-.424	-.291	-.264	-.175	-.006	-.217	-.217	-.221	-.219		.036
62.	-.729	-.756	-.475	-.423	-.292	-.272	-.174	-.006	-.226	-.220	-.229	-.219		.035
64.	-.710	-.756	-.472	-.425	-.289	-.273	-.172	-.005	-.224	-.226	-.227	-.217		.035
66.	-.698	-.751	-.469	-.429	-.296	-.272	-.170	-.005	-.222	-.219	-.225	-.216		.035
68.	-.694	-.755	-.467	-.433	-.295	-.270	-.169	-.005	-.215	-.208	-.215	-.214		.035
70.	-.705	-.764	-.466	-.430	-.295	-.268	-.170	-.007	-.200	-.194	-.215	-.214		.034
72.	-.720	-.764	-.470	-.428	-.294	-.267	-.170	-.007	-.176	-.186	-.205	-.213		.034
74.	-.730	-.760	-.460	-.426	-.292	-.265	-.169	-.007	-.163	-.186	-.204	-.212		.034
76.	-.731	-.757	-.453	-.425	-.291	-.264	-.168	-.007	-.162	-.185	-.205	-.209		.026
78.	-.729	-.755	-.433	-.423	-.288	-.262	-.158	-.007	-.162	-.184	-.214	-.204		.033
80.	-.727	-.742	-.422	-.412	-.280	-.250	-.167	-.007	-.171	-.200	-.220	-.214		.034
82.	-.704	-.738	-.410	-.401	-.279	-.253	-.167	-.007	-.195	-.214	-.225	-.228		.034
84.	-.677	-.725	-.403	-.399	-.274	-.262	-.165	-.004	-.223	-.226	-.236	-.233		.034
86.	-.651	-.712	-.398	-.390	-.271	-.262	-.164	-.004	-.240	-.238	-.242	-.232		.034
88.	-.601	-.700	-.392	-.389	-.272	-.262	-.166	-.004	-.291	-.250	-.253	-.232		.034
90.	-.586	-.686	-.392	-.389	-.267	-.262	-.172	-.004	-.322	-.272	-.257	-.232		.035
92.	-.548	-.664	-.392	-.389	-.272	-.262	-.164	-.004	-.351	-.286	-.262	-.232		.043
94.	-.511	-.650	-.392	-.389	-.271	-.262	-.164	-.004	-.380	-.293	-.273	-.232		.043
96.	-.474	-.624	-.393	-.388	-.273	-.262	-.165	-.004	-.422	-.311	-.286	-.233		.043
98.	-.447	-.592	-.386	-.380	-.271	-.263	-.165	-.004	-.438	-.336	-.296	-.233		.043
100.	-.412	-.573	-.377	-.373	-.262	-.263	-.165	-.004	-.468	-.349	-.307	-.239		.043
102.	-.388	-.554	-.368	-.372	-.260	-.256	-.166	-.004	-.498	-.362	-.310	-.249		.044
104.	-.363	-.524	-.358	-.363	-.253	-.252	-.166	-.005	-.529	-.376	-.318	-.251		.048
106.	-.339	-.506	-.349	-.359	-.252	-.253	-.167	-.005	-.560	-.387	-.329	-.246		.053
108.	-.314	-.490	-.350	-.356	-.253	-.254	-.168	-.015	-.592	-.392	-.340	-.245		.054
110.	-.295	-.474	-.332	-.353	-.254	-.256	-.168	-.028	-.619	-.402	-.343	-.239		.054
112.	-.277	-.458	-.313	-.350	-.246	-.257	-.169	-.025	-.637	-.409	-.345	-.239		.054
114.	-.259	-.443	-.315	-.347	-.247	-.259	-.170	-.029	-.662	-.424	-.347	-.241		.054
116.	-.240	-.433	-.317	-.344	-.249	-.260	-.172	-.032	-.689	-.434	-.350	-.242		.055
118.	-.230	-.423	-.317	-.336	-.250	-.262	-.173	-.032	-.709	-.437	-.352	-.244		.055

FLT 94 RUN7

AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT 94 RUN 7 TIME 51109.200

MU= .247 CLP= .00520 TEMP(U60)= 29.7 C = 85.47 F

X/C* AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
120.	-.215	-.413	-.311	-.335	-.251	-.251	-.174	-.032	-.738	-.440	-.355	-.246		.056
122.	-.207	-.394	-.311	-.338	-.244	-.253	-.166	-.032	-.766	-.444	-.358	-.248		.056
124.	-.200	-.392	-.302	-.341	-.246	-.255	-.166	-.033	-.788	-.448	-.359	-.248		.057
126.	-.198	-.395	-.297	-.336	-.248	-.257	-.168	-.033	-.800	-.452	-.354	-.241		.057
128.	-.199	-.399	-.300	-.340	-.248	-.260	-.169	-.033	-.819	-.456	-.355	-.234		.058
130.	-.191	-.405	-.304	-.344	-.243	-.262	-.160	-.034	-.831	-.462	-.352	-.231		.058
132.	-.203	-.435	-.302	-.339	-.247	-.260	-.163	-.037	-.840	-.446	-.353	-.230		.058
134.	-.207	-.453	-.299	-.341	-.245	-.253	-.165	-.037	-.849	-.446	-.346	-.227		.059
136.	-.210	-.471	-.303	-.335	-.246	-.256	-.167	-.037	-.859	-.439	-.339	-.225		.058
138.	-.212	-.477	-.306	-.339	-.250	-.259	-.169	-.038	-.854	-.442	-.332	-.218		.050
140.	-.229	-.483	-.310	-.342	-.247	-.255	-.171	-.038	-.848	-.435	-.319	-.211		.050
142.	-.235	-.489	-.314	-.337	-.244	-.250	-.173	-.039	-.841	-.426	-.314	-.209		.051
144.	-.265	-.495	-.318	-.341	-.242	-.254	-.171	-.039	-.818	-.417	-.318	-.206		.051
146.	-.271	-.502	-.323	-.343	-.246	-.257	-.166	-.040	-.794	-.407	-.315	-.205		.052
148.	-.287	-.509	-.327	-.340	-.249	-.251	-.168	-.040	-.773	-.398	-.308	-.208		.053
150.	-.295	-.517	-.332	-.344	-.244	-.248	-.171	-.041	-.759	-.388	-.300	-.211		.049
152.	-.316	-.524	-.337	-.346	-.244	-.252	-.173	-.042	-.720	-.379	-.293	-.214		.043
154.	-.337	-.532	-.342	-.343	-.248	-.244	-.176	-.042	-.694	-.369	-.285	-.199		.049
156.	-.359	-.541	-.347	-.349	-.252	-.243	-.178	-.043	-.667	-.354	-.277	-.199		.049
158.	-.382	-.549	-.353	-.354	-.256	-.247	-.172	-.044	-.640	-.332	-.269	-.192		.045
160.	-.414	-.558	-.359	-.360	-.248	-.251	-.171	-.044	-.604	-.321	-.260	-.184		.045
162.	-.439	-.568	-.365	-.359	-.251	-.256	-.173	-.045	-.563	-.310	-.252	-.175		.046
164.	-.456	-.578	-.371	-.360	-.256	-.243	-.176	-.046	-.533	-.298	-.243	-.167		.047
166.	-.492	-.588	-.377	-.366	-.259	-.246	-.180	-.047	-.501	-.277	-.234	-.169		.048
168.	-.527	-.598	-.384	-.369	-.251	-.251	-.170	-.048	-.457	-.265	-.224	-.160		.049
170.	-.554	-.607	-.390	-.374	-.257	-.255	-.171	-.048	-.426	-.258	-.214	-.152		.049
172.	-.583	-.618	-.397	-.371	-.269	-.261	-.172	-.046	-.384	-.232	-.201	-.151		.051
174.	-.628	-.645	-.404	-.374	-.262	-.266	-.175	-.047	-.341	-.211	-.187	-.141		.052
176.	-.664	-.659	-.412	-.381	-.267	-.271	-.178	-.047	-.319	-.196	-.170	-.139		.039
178.	-.697	-.672	-.420	-.389	-.272	-.271	-.181	-.048	-.284	-.180	-.163	-.146		.039

FLT 94 RUN7

47

AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT 94 RUN 7 TIME 51109.200

MU= .247 CLP= .00520 TEMP(U60)= 29.7 C = 85.47 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
180.	-.749	-.666	-.428	-.396	-.278	-.267	-.183	-.049	-.243	-.164	-.141	-.140		.040
182.	-.787	-.641	-.436	-.404	-.277	-.279	-.172	-.050	-.201	-.147	-.128	-.125		.040
184.	-.844	-.653	-.445	-.412	-.272	-.271	-.179	-.051	-.156	-.129	-.122	-.091		.041
186.	-.904	-.666	-.465	-.426	-.278	-.276	-.191	-.052	-.133	-.111	-.108	-.079		.042
188.	-.948	-.682	-.481	-.431	-.285	-.281	-.183	-.055	-.088	-.094	-.097	-.097		.043
190.	-1.013	-.699	-.490	-.421	-.282	-.286	-.189	-.059	-.039	-.074	-.090	-.094		.043
192.	-1.074	-.728	-.499	-.432	-.278	-.293	-.192	-.058	.015	-.048	-.041	-.084		.044
194.	-1.133	-.749	-.524	-.450	-.295	-.299	-.193	-.057	.065	.012	-.017	-.075		.046
196.	-1.242	-.780	-.538	-.447	-.307	-.289	-.197	-.058	.098	.013	-.017	-.072		.046
198.	-1.317	-.804	-.549	-.456	-.299	-.287	-.191	-.032	.150	.013	-.017	-.073		.047
200.	-1.394	-.834	-.560	-.465	-.300	-.293	-.185	-.009	.188	.019	-.003	-.074		.039
202.	-1.482	-.862	-.572	-.474	-.306	-.298	-.189	-.009	.241	.044	.016	-.062		.040
204.	-1.581	-.892	-.583	-.483	-.312	-.304	-.193	-.009	.275	.070	.019	-.061		.039
206.	-1.654	-.910	-.595	-.493	-.319	-.310	-.197	-.009	.311	.088	.037	-.062		.032
208.	-1.740	-.943	-.627	-.503	-.325	-.317	-.200	-.010	.348	.100	.039	-.063		.032
210.	-1.843	-.971	-.640	-.513	-.331	-.296	-.187	-.010	.386	.128	.040	-.030		.033
212.	-1.952	-.990	-.652	-.523	-.338	-.301	-.186	-.010	.425	.145	.043	-.048		.034
214.	-2.059	-1.028	-.665	-.519	-.344	-.307	-.189	-.010	.466	.162	.082	-.046		.034
216.	-2.156	-1.055	-.677	-.522	-.351	-.312	-.193	-.010	.546	.178	.084	-.031		.035
218.	-2.277	-1.074	-.690	-.531	-.357	-.318	-.197	-.010	.594	.198	.094	-.027		.035
220.	-2.388	-1.094	-.702	-.541	-.359	-.324	-.200	-.011	.605	.212	.125	-.013		.016
222.	-2.517	-1.113	-.715	-.551	-.347	-.330	-.179	-.011	.615	.216	.117	-.013		.014
224.	-2.630	-1.133	-.727	-.560	-.353	-.335	-.182	-.011	.626	.220	.135	-.013		.014
226.	-2.767	-1.152	-.739	-.548	-.359	-.332	-.185	-.011	.637	.247	.137	-.013		.014
228.	-2.882	-1.171	-.752	-.556	-.365	-.314	-.188	-.011	.678	.257	.149	-.013		.015
230.	-2.995	-1.190	-.764	-.565	-.360	-.319	-.191	-.012	.693	.261	.165	-.014		.015
232.	-3.108	-1.208	-.775	-.573	-.351	-.324	-.194	-.012	.704	.294	.168	-.014		.015
234.	-3.189	-1.226	-.787	-.580	-.369	-.329	-.190	-.012	.715	.301	.157	-.014		.015
236.	-3.269	-1.243	-.780	-.566	-.387	-.334	-.173	-.012	.726	.305	.177	-.014		.016
238.	-3.350	-1.260	-.782	-.573	-.377	-.338	-.175	-.012	.773	.309	.200	-.014		.016

FLT 94 RUN7

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT 94 RUN 7 TIME 51109.200

MU= .247 CLP= .00520 TEMP(U60)= 29.7 C = 85.47 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
240.	-3.423	-1.277	-.792	-.581	-.354	-.343	-.177	-.012	.783	.317	.203	-.015		.007
242.	-3.473	-1.293	-.802	-.588	-.348	-.347	-.179	-.013	.792	.351	.205	-.015		-.020
244.	-3.540	-1.308	-.811	-.587	-.352	-.327	-.182	-.013	.802	.355	.208	-.015		-.037
246.	-3.579	-1.322	-.820	-.575	-.356	-.318	-.184	-.013	.810	.358	.210	-.015		-.038
248.	-3.615	-1.320	-.801	-.581	-.360	-.322	-.185	-.013	.819	.362	.212	-.015		-.038
250.	-3.649	-1.313	-.807	-.586	-.363	-.355	-.187	-.013	.826	.365	.214	-.015		-.038
252.	-3.680	-1.325	-.814	-.578	-.366	-.333	-.189	-.013	.818	.369	.216	-.016		-.039
254.	-3.690	-1.335	-.820	-.569	-.369	-.330	-.190	-.013	.798	.371	.217	-.016		-.039
256.	-3.696	-1.322	-.822	-.572	-.372	-.332	-.191	-.013	.804	.374	.219	-.016		-.039
258.	-3.697	-1.316	-.800	-.576	-.345	-.334	-.193	-.014	.809	.376	.219	-.016		-.039
260.	-3.699	-1.323	-.804	-.579	-.346	-.336	-.194	-.014	.813	.378	.219	-.016		-.038
262.	-3.714	-1.329	-.808	-.581	-.348	-.337	-.194	-.014	.816	.380	.218	-.016		-.034
264.	-3.700	-1.333	-.810	-.583	-.349	-.338	-.195	-.014	.819	.381	.200	-.016		-.040
266.	-3.697	-1.336	-.812	-.584	-.356	-.339	-.195	-.014	.821	.382	.223	-.016		-.040
268.	-3.703	-1.338	-.813	-.585	-.373	-.339	-.196	-.014	.822	.382	.224	-.016		-.040
270.	-3.704	-1.305	-.814	-.586	-.350	-.340	-.196	-.014	.822	.382	.224	-.016		-.040
272.	-3.703	-1.302	-.813	-.585	-.350	-.339	-.196	-.014	.822	.382	.224	-.016		-.040
274.	-3.698	-1.300	-.812	-.584	-.350	-.339	-.195	-.014	.821	.382	.223	-.016		-.040
276.	-3.689	-1.297	-.810	-.583	-.349	-.338	-.195	-.014	.819	.381	.223	-.016		-.037
278.	-3.640	-1.293	-.808	-.581	-.348	-.337	-.194	-.014	.815	.380	.222	-.016		-.011
280.	-3.625	-1.293	-.804	-.577	-.346	-.336	-.194	-.014	.813	.378	.207	-.002		-.011
282.	-3.607	-1.317	-.800	-.548	-.345	-.334	-.193	-.014	.809	.376	.208	-.006		-.011
284.	-3.586	-1.309	-.796	-.545	-.343	-.332	-.192	-.013	.804	.374	.219	-.000		-.011
286.	-3.562	-1.300	-.790	-.542	-.340	-.330	-.190	-.013	.799	.371	.217	-.008		-.011
288.	-3.535	-1.291	-.784	-.538	-.338	-.327	-.189	-.013	.793	.369	.216	-.016		-.011
290.	-3.505	-1.267	-.778	-.533	-.335	-.325	-.187	-.013	.786	.366	.194	-.015		-.011
292.	-3.463	-1.234	-.771	-.537	-.332	-.322	-.185	-.013	.779	.362	.186	-.015		-.011
294.	-3.403	-1.222	-.763	-.549	-.329	-.318	-.184	-.013	.771	.359	.184	-.015		-.010
296.	-3.353	-1.209	-.755	-.532	-.348	-.344	-.182	-.013	.763	.355	.182	-.015		-.010
298.	-3.279	-1.177	-.746	-.511	-.349	-.317	-.180	-.013	.740	.339	.180	-.015		-.026

FLT 94 RUN7

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT 94 RUN 7 TIME 51109.200

MU= .247 CLP= .00520 TEMP(U60)= 29.7 C = 85.47 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES						
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90	
300.	-3.187	-1.148	-.709	-.505	-.344	-.308	-.177	-.012	.706	.314	.177	-.015		-.036	
302.	-3.058	-1.133	-.700	-.499	-.314	-.304	-.175	-.012	.697	.296	.150	-.015		-.018	
304.	-2.931	-1.097	-.687	-.492	-.309	-.300	-.173	-.012	.688	.274	.146	-.036		-.028	
306.	-2.782	-1.049	-.655	-.485	-.305	-.295	-.170	-.012	.678	.253	.098	-.038		-.035	
308.	-2.647	-1.024	-.645	-.478	-.300	-.291	-.168	-.012	.668	.235	.096	-.057		-.015	
310.	-2.518	-1.009	-.635	-.471	-.296	-.287	-.165	-.012	.658	.231	.091	-.056		-.009	
312.	-2.403	-.943	-.625	-.463	-.291	-.282	-.187	-.011	.648	.228	.065	-.060		.012	
314.	-2.300	-.918	-.615	-.456	-.292	-.278	-.160	-.077	.637	.203	.052	-.075		.014	
316.	-2.222	-.956	-.605	-.448	-.305	-.280	-.182	-.075	.627	.191	.068	-.073		.014	
318.	-2.179	-.944	-.594	-.460	-.300	-.299	-.179	-.074	.536	.188	.059	-.072		.014	
320.	-2.141	-.928	-.595	-.454	-.295	-.294	-.176	-.064	.507	.162	.044	-.063		.014	
322.	-2.102	-.938	-.597	-.446	-.290	-.289	-.173	-.010	.498	.154	.043	-.059		.009	
324.	-2.064	-.924	-.586	-.439	-.284	-.283	-.170	-.010	.488	.151	.042	-.078		-.030	
326.	-2.026	-.931	-.589	-.451	-.290	-.278	-.167	-.010	.479	.148	.041	-.085		-.029	
328.	-1.990	-.918	-.587	-.445	-.284	-.273	-.170	-.028	.470	.145	.041	-.084		-.024	
330.	-1.980	-.921	-.575	-.454	-.281	-.268	-.183	-.066	.462	.142	.040	-.082		-.019	
332.	-1.970	-.910	-.580	-.445	-.284	-.278	-.179	-.065	.453	.140	.039	-.081		-.035	
334.	-1.958	-.918	-.574	-.441	-.279	-.284	-.176	-.064	.444	.137	.025	-.079		-.008	
336.	-1.947	-.917	-.580	-.447	-.287	-.279	-.172	-.063	.451	.134	.019	-.078		-.007	
338.	-1.941	-.908	-.572	-.438	-.287	-.273	-.169	-.061	.510	.132	.018	-.076		-.007	
340.	-1.946	-.904	-.579	-.436	-.282	-.268	-.165	-.060	.500	.129	.018	-.075		-.016	
342.	-1.941	-.897	-.569	-.438	-.276	-.282	-.174	-.059	.490	.127	.033	-.073		-.025	
344.	-1.952	-.903	-.576	-.438	-.287	-.281	-.178	-.058	.480	.124	.035	-.072		-.025	
346.	-1.961	-.895	-.565	-.438	-.283	-.276	-.175	-.023	.471	.122	.034	-.070		-.013	
348.	-1.958	-.890	-.554	-.439	-.278	-.270	-.171	-.008	.462	.119	.033	-.084		.005	
350.	-1.954	-.895	-.543	-.437	-.272	-.265	-.168	-.008	.453	.117	.016	-.082		.010	
352.	-1.935	-.884	-.533	-.429	-.300	-.282	-.165	-.046	.405	.115	.016	-.080		.010	
354.	-1.898	-.867	-.529	-.431	-.276	-.256	-.161	-.013	.364	.101	.014	-.079		.035	
356.	-1.861	-.850	-.546	-.428	-.259	-.271	-.174	-.048	.343	.090	-.002	-.077		.041	
358.	-1.825	-.834	-.535	-.419	-.270	-.266	-.156	-.050	.327	.076	-.009	-.082		.027	

FLT 94 RUN7



## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/20.

FLT 94 RUN 9 TIME 51321.200

MU= .296 CLP= .00519 TEMP(U60)= 29.7 C = 85.47 F

X/C=	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
0.	-1.812	-.832	-.505	-.416	-.276	-.269	-.179	-.068	.300	.066	-.015	-.088		.024
2.	-1.723	-.810	-.493	-.413	-.255	-.271	-.173	-.060	.274	.057	-.011	-.085		.024
4.	-1.651	-.795	-.485	-.416	-.271	-.266	-.170	-.055	.237	.047	-.034	-.095		.024
6.	-1.573	-.779	-.475	-.408	-.275	-.274	-.182	-.069	.193	.023	-.031	-.120		.023
8.	-1.513	-.769	-.492	-.401	-.268	-.271	-.184	-.073	.179	.008	-.027	-.118		.022
10.	-1.451	-.758	-.495	-.399	-.271	-.267	-.175	-.065	.148	.001	-.074	-.125		.023
12.	-1.384	-.753	-.485	-.398	-.279	-.262	-.170	-.052	.124	.001	-.085	-.103		.022
14.	-1.330	-.755	-.488	-.403	-.274	-.274	-.173	-.049	.102	.001	-.098	-.143		.022
16.	-1.286	-.756	-.482	-.399	-.268	-.268	-.177	-.048	.080	-.027	-.109	-.140		.001
18.	-1.243	-.745	-.483	-.407	-.265	-.263	-.173	-.047	.060	-.056	-.119	-.140		-.004
20.	-1.204	-.746	-.479	-.404	-.271	-.260	-.170	-.046	.037	-.064	-.130	-.145		.018
22.	-1.166	-.743	-.479	-.406	-.272	-.268	-.172	-.051	.017	-.075	-.140	-.150		.019
24.	-1.115	-.750	-.475	-.411	-.276	-.263	-.181	-.050	-.001	-.089	-.141	-.165		.019
26.	-1.076	-.751	-.477	-.401	-.275	-.263	-.179	-.049	-.019	-.102	-.154	-.169		-.005
28.	-1.041	-.751	-.477	-.393	-.278	-.269	-.187	-.048	-.049	-.114	-.165	-.174		-.013
30.	-1.007	-.753	-.476	-.416	-.276	-.265	-.182	-.045	-.068	-.114	-.161	-.187		.013
32.	-.978	-.759	-.481	-.420	-.285	-.266	-.180	-.038	-.086	-.128	-.165	-.199		.013
34.	-.934	-.773	-.485	-.424	-.289	-.270	-.180	-.019	-.101	-.141	-.176	-.206		.017
36.	-.919	-.777	-.489	-.420	-.290	-.273	-.177	-.019	-.115	-.152	-.184	-.202		.017
38.	-.903	-.789	-.493	-.433	-.297	-.276	-.175	-.018	-.115	-.151	-.185	-.199		.016
40.	-.876	-.787	-.498	-.437	-.304	-.272	-.172	-.018	-.120	-.162	-.189	-.196		.020
42.	-.850	-.776	-.502	-.436	-.303	-.277	-.170	-.018	-.140	-.171	-.197	-.200		.026
44.	-.827	-.769	-.504	-.427	-.299	-.278	-.173	-.018	-.141	-.170	-.197	-.200		.026
46.	-.810	-.765	-.500	-.436	-.299	-.275	-.173	-.013	-.152	-.175	-.198	-.210		.026
48.	-.788	-.757	-.494	-.435	-.299	-.272	-.170	-.013	-.167	-.178	-.207	-.211		.026
50.	-.765	-.747	-.487	-.431	-.296	-.279	-.176	-.014	-.174	-.188	-.215	-.216		.025
52.	-.742	-.738	-.482	-.437	-.290	-.279	-.182	-.011	-.177	-.192	-.210	-.221		.025
54.	-.727	-.723	-.487	-.442	-.297	-.276	-.177	-.011	-.184	-.196	-.218	-.220		.031
56.	-.713	-.711	-.495	-.447	-.304	-.273	-.172	-.012	-.195	-.206	-.226	-.226		.034
58.	-.701	-.712	-.533	-.452	-.311	-.282	-.179	-.011	-.208	-.211	-.232	-.231		.034

FLT 94 RUN9

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/20.

FLT 94 RUN 9 TIME 51321.200

MU= .296 CLP= .00519 TEMP(U60)= 29.7 C = 85.47 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
60.	-.687	-.709	-.581	-.462	-.299	-.280	-.171	-.011	-.206	-.209	-.230	-.229		.034
62.	-.670	-.713	-.638	-.461	-.307	-.277	-.168	-.011	-.205	-.202	-.227	-.228		.033
64.	-.669	-.710	-.689	-.449	-.314	-.262	-.152	-.015	-.178	-.189	-.219	-.226		.032
66.	-.575	-.714	-.728	-.444	-.302	-.261	-.148	-.005	-.153	-.183	-.209	-.224		.032
68.	-.683	-.721	-.753	-.426	-.298	-.259	-.146	-.005	-.138	-.182	-.208	-.225		.032
70.	-.681	-.707	-.774	-.416	-.287	-.257	-.146	-.005	-.134	-.181	-.209	-.227		.032
72.	-.673	-.703	-.785	-.405	-.276	-.256	-.145	-.006	-.145	-.181	-.217	-.223		.032
74.	-.665	-.688	-.785	-.377	-.266	-.254	-.148	-.015	-.169	-.198	-.226	-.227		.031
76.	-.625	-.660	-.776	-.369	-.254	-.253	-.163	-.014	-.204	-.217	-.235	-.233		.032
78.	-.576	-.647	-.758	-.364	-.246	-.253	-.158	-.009	-.231	-.239	-.246	-.239		.041
80.	-.549	-.633	-.737	-.355	-.250	-.258	-.159	-.010	-.269	-.249	-.249	-.247		.042
82.	-.512	-.620	-.716	-.357	-.257	-.264	-.157	-.009	-.307	-.271	-.268	-.252		.049
84.	-.476	-.608	-.669	-.356	-.262	-.263	-.157	-.009	-.335	-.294	-.287	-.257		.049
86.	-.440	-.596	-.597	-.358	-.268	-.262	-.158	-.011	-.373	-.315	-.302	-.259		.049
88.	-.407	-.585	-.513	-.364	-.270	-.262	-.158	-.011	-.399	-.328	-.313	-.265		.049
90.	-.380	-.569	-.435	-.366	-.270	-.270	-.158	-.011	-.425	-.348	-.328	-.267		.052
92.	-.345	-.547	-.391	-.372	-.270	-.265	-.158	-.011	-.452	-.360	-.339	-.261		.053
94.	-.310	-.530	-.362	-.373	-.263	-.262	-.158	-.011	-.478	-.374	-.348	-.272		.053
96.	-.275	-.509	-.361	-.373	-.262	-.262	-.158	-.011	-.506	-.397	-.357	-.275		.057
98.	-.245	-.482	-.352	-.370	-.263	-.253	-.159	-.011	-.538	-.421	-.366	-.275		.057
100.	-.222	-.455	-.344	-.362	-.255	-.252	-.159	-.011	-.574	-.440	-.376	-.276		.058
102.	-.193	-.436	-.335	-.354	-.255	-.253	-.160	-.011	-.602	-.468	-.386	-.277		.064
104.	-.164	-.419	-.325	-.345	-.247	-.254	-.160	-.011	-.632	-.515	-.388	-.278		.067
106.	-.147	-.405	-.307	-.339	-.240	-.255	-.161	-.011	-.661	-.563	-.398	-.278		.067
108.	-.129	-.397	-.292	-.332	-.238	-.257	-.160	-.009	-.691	-.612	-.404	-.273		.068
110.	-.114	-.361	-.283	-.332	-.235	-.258	-.163	-.011	-.714	-.649	-.393	-.273		.068
112.	-.102	-.355	-.278	-.327	-.244	-.259	-.164	-.011	-.742	-.684	-.396	-.267		.068
114.	-.091	-.357	-.277	-.330	-.245	-.261	-.165	-.011	-.765	-.716	-.396	-.263		.069
116.	-.070	-.351	-.273	-.328	-.245	-.260	-.166	-.011	-.785	-.746	-.390	-.259		.069
118.	-.054	-.350	-.270	-.321	-.240	-.253	-.170	-.013	-.804	-.774	-.384	-.251		.069

FLT 94 RUN9

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/20.

FLT 94 RUN 9 TIME 51321.200

MU= .296 CLP= .00519 TEMP(U60)= 29.7 C = 85.47 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
120.	-.042	-.354	-.267	-.318	-.240	-.256	-.176	-.009	-.837	-.795	-.376	-.249		.071
122.	-.042	-.369	-.265	-.321	-.239	-.253	-.167	-.010	-.849	-.815	-.375	-.243		.071
124.	-.043	-.373	-.263	-.323	-.237	-.247	-.162	-.016	-.870	-.814	-.375	-.242		.072
126.	-.043	-.377	-.259	-.317	-.234	-.250	-.164	-.032	-.894	-.752	-.370	-.244		.072
128.	-.044	-.381	-.258	-.312	-.232	-.253	-.166	-.038	-.918	-.661	-.369	-.247		.071
130.	-.044	-.386	-.254	-.314	-.229	-.248	-.164	-.039	-.930	-.593	-.374	-.244		.064
132.	-.047	-.390	-.262	-.309	-.228	-.245	-.159	-.039	-.954	-.539	-.372	-.233		.065
134.	-.061	-.395	-.267	-.311	-.238	-.248	-.161	-.040	-.966	-.510	-.366	-.230		.066
136.	-.075	-.399	-.270	-.315	-.235	-.252	-.162	-.039	-.978	-.495	-.367	-.226		.067
138.	-.090	-.404	-.274	-.318	-.227	-.256	-.163	-.038	-.988	-.460	-.356	-.220		.068
140.	-.106	-.412	-.280	-.322	-.228	-.249	-.166	-.039	-.986	-.461	-.349	-.214		.064
142.	-.125	-.420	-.285	-.324	-.235	-.248	-.164	-.024	-.986	-.452	-.347	-.208		.059
144.	-.136	-.427	-.290	-.324	-.240	-.239	-.165	-.018	-.986	-.455	-.334	-.211		.059
146.	-.152	-.434	-.294	-.329	-.234	-.240	-.168	-.041	-.971	-.442	-.328	-.205		.060
148.	-.177	-.441	-.299	-.328	-.237	-.244	-.171	-.050	-.936	-.427	-.322	-.209		.061
150.	-.195	-.468	-.304	-.322	-.240	-.233	-.174	-.025	-.900	-.412	-.315	-.210		.054
152.	-.211	-.481	-.307	-.324	-.233	-.237	-.167	-.038	-.857	-.395	-.298	-.186		.052
154.	-.263	-.492	-.314	-.321	-.233	-.242	-.161	-.034	-.808	-.379	-.287	-.188		.054
156.	-.286	-.498	-.317	-.323	-.241	-.230	-.170	-.042	-.756	-.363	-.282	-.188		.054
158.	-.302	-.507	-.323	-.330	-.238	-.237	-.167	-.045	-.708	-.341	-.261	-.171		.056
160.	-.338	-.517	-.330	-.340	-.236	-.241	-.157	-.014	-.651	-.327	-.254	-.167		.057
162.	-.365	-.544	-.337	-.347	-.247	-.246	-.160	-.044	-.603	-.294	-.243	-.162		.058
164.	-.406	-.555	-.344	-.350	-.244	-.245	-.166	-.016	-.557	-.277	-.228	-.152		.047
166.	-.449	-.565	-.357	-.357	-.248	-.238	-.169	-.016	-.490	-.264	-.218	-.150		.048
168.	-.477	-.579	-.372	-.356	-.252	-.244	-.170	-.013	-.437	-.236	-.202	-.146		.049
170.	-.526	-.608	-.380	-.360	-.252	-.248	-.171	-.025	-.404	-.224	-.187	-.137		.050
172.	-.574	-.620	-.390	-.377	-.258	-.254	-.164	-.042	-.378	-.191	-.169	-.122		.051
174.	-.630	-.637	-.400	-.390	-.272	-.259	-.168	-.017	-.295	-.181	-.155	-.120		.052
176.	-.685	-.653	-.421	-.398	-.272	-.263	-.177	-.039	-.257	-.151	-.148	-.099		.047
178.	-.745	-.656	-.435	-.407	-.284	-.269	-.183	-.061	-.198	-.135	-.127	-.089		.038

FLT 94 RUN9

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/20.

FLT 94 RUN 9 TIME 51321.200

MU= .296 CLP= .00519 TEMP(U60)= 29.7 C = 85.47 F

Y/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
180.	-.820	-.646	-.458	-.417	-.284	-.275	-.187	-.041	-.151	-.115	-.110	-.091		.039
182.	-.687	-.669	-.471	-.426	-.299	-.282	-.191	-.027	-.089	-.081	-.097	-.032		.040
184.	-.974	-.705	-.483	-.437	-.310	-.272	-.186	-.028	-.029	-.052	-.083	-.031		.041
186.	-1.064	-.733	-.510	-.447	-.269	-.273	-.183	-.028	.047	-.008	-.041	-.083		.042
188.	-1.158	-.762	-.523	-.458	-.321	-.280	-.187	-.029	.091	-.001	-.036	-.072		.043
190.	-1.256	-.802	-.554	-.469	-.300	-.286	-.192	-.030	.162	.021	-.005	-.072		.044
192.	-1.358	-.831	-.568	-.480	-.305	-.293	-.196	-.030	.219	.045	-.004	-.059		.045
194.	-1.465	-.866	-.582	-.492	-.312	-.300	-.186	-.031	.266	.069	.014	-.044		.046
196.	-1.591	-.911	-.599	-.504	-.320	-.308	-.186	-.032	.316	.095	.033	-.030		.033
198.	-1.733	-.940	-.630	-.516	-.327	-.314	-.191	-.033	.365	.122	.053	-.031		.029
200.	-1.863	-.963	-.646	-.529	-.336	-.297	-.195	-.033	.457	.150	.074	-.032		.030
202.	-2.009	-1.007	-.662	-.527	-.344	-.304	-.180	-.034	.510	.180	.091	-.024		.031
204.	-2.169	-1.036	-.678	-.536	-.352	-.312	-.183	-.035	.523	.211	.093	.002		.032
206.	-2.358	-1.085	-.694	-.549	-.355	-.319	-.167	-.036	.559	.224	.102	.008		.032
208.	-2.512	-1.113	-.711	-.562	-.348	-.319	-.190	-.037	.580	.250	.126	.020		.033
210.	-2.688	-1.140	-.728	-.576	-.356	-.306	-.177	-.038	.621	.262	.142	.021		.034
212.	-2.874	-1.170	-.746	-.568	-.365	-.313	-.202	-.039	.670	.268	.165	.030		.035
214.	-3.008	-1.224	-.764	-.581	-.373	-.320	-.201	-.040	.689	.301	.193	.042		.036
216.	-3.142	-1.252	-.781	-.595	-.382	-.328	-.186	-.041	.705	.310	.198	.043		.036
218.	-3.277	-1.275	-.800	-.605	-.377	-.319	-.182	-.041	.757	.317	.202	.044		.037
220.	-3.389	-1.230	-.818	-.599	-.375	-.310	-.169	-.042	.774	.326	.207	.045		.038
222.	-3.527	-1.309	-.836	-.610	-.383	-.317	-.172	-.043	.791	.363	.212	.046		.039
224.	-3.631	-1.336	-.831	-.610	-.373	-.324	-.176	-.044	.809	.372	.234	.047		.040
226.	-3.716	-1.350	-.842	-.605	-.390	-.332	-.177	-.042	.829	.384	.250	.049		.041
228.	-3.830	-1.357	-.860	-.617	-.382	-.261	-.178	-.040	.847	.392	.256	.050		.043
230.	-3.931	-1.369	-.877	-.619	-.384	-.236	-.182	-.040	.852	.400	.261	.051		.043
232.	-4.023	-1.378	-.866	-.615	-.392	-.241	-.186	-.041	.840	.407	.267	.052		.044
234.	-4.121	-1.404	-.882	-.627	-.373	-.245	-.189	-.042	.856	.415	.272	.053		.011
236.	-4.196	-1.429	-.895	-.623	-.405	-.250	-.193	-.043	.872	.423	.277	.054		-.011
238.	-4.269	-1.431	-.883	-.627	-.383	-.254	-.196	-.043	.887	.430	.281	.055		-.012

FLT 94 RUN9

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT 94 RUN 9 TIME 51321.200

MU= .296 CLP= .00519 TEMP(U60)= 29.7 C = 85.47 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
240.	-4.341	-1.419	-.899	-.635	-.389	-.258	-.199	-.044	.899	.434	.283	.056		.010
242.	-4.385	-1.428	-.905	-.622	-.370	-.261	-.207	-.051	.889	.441	.256	.055		.017
244.	-4.407	-1.448	-.892	-.621	-.371	-.266	-.176	-.046	.884	.451	.265	.058		.018
246.	-4.455	-1.468	-.895	-.630	-.376	-.270	-.175	-.046	.897	.457	.269	.059		.019
248.	-4.481	-1.453	-.883	-.638	-.373	-.274	-.177	-.047	.908	.463	.272	.060		.019
250.	-4.491	-1.465	-.894	-.646	-.353	-.277	-.179	-.047	.919	.468	.276	.060		-.012
252.	-4.460	-1.443	-.889	-.625	-.367	-.280	-.181	-.048	.929	.442	.279	.061		-.013
254.	-4.491	-1.456	-.875	-.606	-.381	-.283	-.183	-.048	.898	.437	.281	.062		-.013
256.	-4.485	-1.458	-.882	-.601	-.359	-.287	-.182	-.046	.906	.452	.289	.051		-.016
258.	-4.437	-1.439	-.892	-.606	-.360	-.290	-.176	-.036	.906	.446	.293	.022		-.039
260.	-4.420	-1.448	-.877	-.610	-.368	-.289	-.187	-.049	.911	.447	.288	.005		-.013
262.	-4.398	-1.456	-.868	-.613	-.370	-.291	-.188	-.050	.916	.450	.289	.005		-.005
264.	-4.370	-1.452	-.871	-.616	-.352	-.292	-.189	-.050	.920	.452	.291	.005		.020
266.	-4.344	-1.425	-.874	-.618	-.338	-.293	-.189	-.050	.923	.453	.292	.005		.020
268.	-4.334	-1.427	-.875	-.619	-.339	-.293	-.190	-.050	.924	.454	.292	.005		.008
270.	-4.267	-1.428	-.876	-.619	-.364	-.293	-.190	-.050	.925	.454	.292	.006		-.013
272.	-4.251	-1.427	-.876	-.619	-.347	-.293	-.190	-.050	.924	.454	.292	.006		-.013
274.	-4.213	-1.425	-.874	-.608	-.338	-.293	-.189	-.050	.923	.453	.292	.005		.004
276.	-4.181	-1.416	-.865	-.592	-.337	-.292	-.189	-.050	.923	.456	.291	.005		.020
278.	-4.133	-1.405	-.861	-.590	-.326	-.294	-.179	-.038	.925	.462	.271	.010		.002
280.	-4.111	-1.398	-.857	-.587	-.323	-.293	-.174	-.033	.920	.460	.237	.010		-.010
282.	-4.085	-1.389	-.852	-.596	-.321	-.291	-.173	-.033	.915	.457	.267	.010		-.010
284.	-4.033	-1.385	-.851	-.602	-.320	-.289	-.172	-.032	.903	.448	.264	.009		-.010
286.	-3.983	-1.376	-.844	-.596	-.360	-.283	-.181	-.046	.891	.438	.250	.005		-.012
288.	-3.944	-1.362	-.836	-.591	-.357	-.280	-.181	-.048	.882	.433	.248	.005		.040
290.	-3.902	-1.348	-.828	-.593	-.353	-.277	-.179	-.047	.873	.429	.245	.005		.051
292.	-3.858	-1.336	-.819	-.580	-.350	-.273	-.210	-.047	.860	.420	.241	.005		.050
294.	-3.807	-1.350	-.808	-.579	-.348	-.269	-.214	-.054	.851	.417	.235	.004		.048
296.	-3.757	-1.339	-.797	-.563	-.341	-.266	-.206	-.046	.837	.408	.234	.004		.049
298.	-3.700	-1.316	-.796	-.535	-.338	-.261	-.208	-.051	.827	.375	.229	.004		.047

FLT 94 RUN9

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/20.

FLT 94 RUN 9 TIME 51321.200

MU= .296 CLP= .00519 TEMP(U60)= 29.7 C = 85.47 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
300.	-3.637	-1.287	-.797	-.553	-.337	-.260	-.197	-.042	.860	.372	.233	.007		.048
302.	-3.578	-1.267	-.788	-.565	-.331	-.258	-.185	-.029	.853	.368	.236	.009		.041
304.	-3.485	-1.251	-.773	-.535	-.313	-.252	-.184	-.032	.830	.352	.213	.007		-.009
306.	-3.417	-1.222	-.757	-.531	-.308	-.247	-.186	-.038	.823	.355	.196	.007		-.011
308.	-3.351	-1.201	-.747	-.562	-.314	-.244	-.175	-.027	.805	.348	.181	-.021		-.009
310.	-3.254	-1.193	-.734	-.551	-.325	-.238	-.176	-.032	.745	.332	.143	-.041		-.009
312.	-3.160	-1.184	-.720	-.540	-.322	-.232	-.179	-.040	.730	.322	.128	-.042		-.011
314.	-3.087	-1.148	-.705	-.529	-.316	-.227	-.175	-.039	.716	.286	.144	-.041		-.010
316.	-2.988	-1.145	-.691	-.518	-.309	-.222	-.171	-.038	.701	.280	.128	-.040		.013
318.	-2.901	-1.121	-.700	-.507	-.303	-.293	-.168	-.037	.686	.274	.120	-.039		.040
320.	-2.826	-1.096	-.687	-.489	-.296	-.312	-.180	-.036	.671	.268	.117	-.038		.039
322.	-2.728	-1.068	-.667	-.472	-.311	-.305	-.186	-.036	.658	.255	.094	-.037		.010
324.	-2.647	-1.043	-.654	-.474	-.300	-.301	-.175	-.028	.646	.234	.120	-.034		.007
326.	-2.571	-1.018	-.639	-.470	-.296	-.321	-.172	-.027	.631	.228	.092	-.034		-.000
328.	-2.496	-1.012	-.646	-.468	-.308	-.317	-.185	-.023	.602	.225	.072	-.053		.009
330.	-2.441	-1.002	-.635	-.482	-.301	-.310	-.184	-.021	.568	.201	.070	-.069		.031
332.	-2.386	-1.002	-.627	-.480	-.301	-.300	-.187	-.030	.551	.178	.060	-.070		.034
334.	-2.331	-.985	-.629	-.484	-.297	-.292	-.188	-.036	.536	.172	.052	-.070		.032
336.	-2.294	-.983	-.621	-.477	-.294	-.285	-.184	-.035	.524	.168	.039	-.068		.032
338.	-2.267	-.985	-.621	-.466	-.304	-.278	-.179	-.034	.511	.164	.043	-.072		.031
340.	-2.260	-.964	-.614	-.471	-.296	-.278	-.196	-.034	.499	.160	.020	-.082		.030
342.	-2.257	-.941	-.611	-.479	-.296	-.290	-.191	-.033	.487	.137	.032	-.080		.029
344.	-2.231	-.942	-.606	-.469	-.308	-.283	-.186	-.040	.475	.129	.024	-.078		.029
346.	-2.225	-.943	-.601	-.458	-.312	-.286	-.182	-.081	.464	.126	.013	-.069		.028
348.	-2.197	-.940	-.587	-.464	-.305	-.294	-.178	-.079	.453	.123	.013	-.067		.027
350.	-2.146	-.918	-.573	-.454	-.298	-.287	-.179	-.063	.442	.120	.013	-.072		.027
352.	-2.114	-.901	-.559	-.458	-.291	-.280	-.187	-.045	.432	.117	.012	-.079		.026
354.	-2.042	-.896	-.546	-.447	-.284	-.273	-.183	-.073	.421	.094	.012	-.074		.025
356.	-1.973	-.875	-.534	-.441	-.277	-.267	-.179	-.072	.402	.092	.001	-.077		.025
358.	-1.906	-.855	-.521	-.437	-.271	-.261	-.175	-.070	.330	.087	-.003	-.079		.024

FLT 94 RUN9

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT 94 RUN 11 TIME 51521.800

MU= .345 CLP= .00526 TEMP(U60)= 29.7 C = 85.47 F

X/C=	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
0.	-2.414	-.984	-.608	-.457	-.286	-.259	-.148	-.009	.564	.217	.104	-.046		-.002
2.	-2.334	-.958	-.587	-.446	-.288	-.252	-.147	-.009	.545	.209	.087	-.054		-.002
4.	-2.265	-.934	-.573	-.437	-.286	-.258	-.141	-.009	.505	.184	.070	-.056		-.002
6.	-2.169	-.911	-.558	-.429	-.281	-.258	-.147	-.011	.453	.159	.051	-.065		-.002
8.	-2.076	-.888	-.545	-.430	-.272	-.252	-.152	-.010	.415	.139	.038	-.065		-.002
10.	-1.989	-.867	-.532	-.423	-.279	-.245	-.155	-.010	.369	.116	.010	-.064		.012
12.	-1.897	-.854	-.531	-.420	-.274	-.254	-.161	-.011	.347	.097	-.017	-.074		.024
14.	-1.799	-.850	-.521	-.423	-.278	-.251	-.161	-.034	.316	.078	-.028	-.083		.024
16.	-1.716	-.840	-.523	-.416	-.274	-.261	-.168	-.045	.257	.056	-.043	-.093		.014
18.	-1.624	-.829	-.510	-.408	-.285	-.254	-.172	-.049	.223	.040	-.053	-.115		.000
20.	-1.540	-.824	-.512	-.404	-.273	-.267	-.174	-.042	.192	.026	-.064	-.129		-.002
22.	-1.464	-.822	-.514	-.416	-.279	-.262	-.171	-.040	.163	.011	-.085	-.128		.008
24.	-1.388	-.833	-.514	-.419	-.275	-.271	-.168	-.039	.140	.002	-.095	-.134		-.000
26.	-1.323	-.831	-.506	-.420	-.284	-.264	-.168	-.044	.109	.003	-.107	-.137		-.003
28.	-1.254	-.841	-.508	-.429	-.284	-.263	-.161	-.037	.086	-.026	-.113	-.150		.009
30.	-1.199	-.842	-.512	-.427	-.280	-.269	-.158	-.028	.065	-.050	-.123	-.158		-.002
32.	-1.148	-.828	-.514	-.422	-.281	-.263	-.160	-.041	.046	-.065	-.139	-.169		.019
34.	-1.097	-.810	-.514	-.421	-.287	-.263	-.169	-.037	.031	-.075	-.148	-.173		.027
36.	-1.048	-.795	-.516	-.423	-.290	-.269	-.162	-.008	.017	-.085	-.142	-.177		.019
38.	-1.015	-.781	-.512	-.426	-.290	-.270	-.163	-.006	.001	-.096	-.144	-.187		.019
40.	-.971	-.766	-.510	-.429	-.290	-.273	-.170	-.006	-.029	-.095	-.152	-.183		.018
42.	-.929	-.744	-.506	-.432	-.296	-.276	-.159	-.006	-.043	-.107	-.159	-.186		.021
44.	-.891	-.729	-.513	-.435	-.296	-.278	-.170	-.006	-.057	-.117	-.166	-.192		.027
46.	-.862	-.710	-.518	-.438	-.291	-.274	-.172	-.006	-.071	-.128	-.173	-.197		.027
48.	-.821	-.700	-.530	-.444	-.294	-.270	-.176	-.006	-.084	-.138	-.180	-.209		.026
50.	-.783	-.690	-.568	-.451	-.300	-.275	-.173	-.006	-.097	-.149	-.187	-.210		.026
52.	-.769	-.681	-.620	-.452	-.298	-.275	-.171	-.006	-.110	-.159	-.194	-.221		.030
54.	-.743	-.673	-.672	-.462	-.302	-.272	-.169	-.005	-.122	-.165	-.201	-.220		.034
56.	-.715	-.666	-.705	-.467	-.300	-.268	-.167	-.005	-.130	-.167	-.207	-.225		.034
58.	-.696	-.659	-.736	-.472	-.298	-.265	-.166	-.007	-.134	-.178	-.215	-.231		.033

FLT 94 RUN11

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/20.

FLT 94 RUN 11 TIME 51521.800

MU= .345 CLP= .00526 TEMP(U60)= 29.7 C = 85.47 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
50.	-.678	-.653	-.765	-.476	-.295	-.273	-.172	-.001	-.141	-.188	-.222	-.236		.039
52.	-.659	-.646	-.776	-.479	-.294	-.271	-.167	-.001	-.146	-.192	-.222	-.234		.041
54.	-.648	-.640	-.786	-.483	-.290	-.269	-.162	.000	-.150	-.190	-.225	-.232		.041
56.	-.635	-.635	-.786	-.480	-.289	-.265	-.144	.001	-.149	-.188	-.216	-.230		.040
58.	-.618	-.629	-.780	-.488	-.292	-.253	-.150	.001	-.147	-.186	-.214	-.228		.040
60.	-.602	-.624	-.774	-.501	-.278	-.252	-.148	.003	-.154	-.184	-.213	-.230		.040
62.	-.578	-.620	-.766	-.524	-.258	-.248	-.147	.003	-.166	-.191	-.220	-.239		.040
64.	-.553	-.608	-.753	-.544	-.242	-.241	-.155	.002	-.188	-.209	-.228	-.243		.040
66.	-.508	-.593	-.735	-.558	-.230	-.247	-.157	-.007	-.222	-.229	-.241	-.254		.047
68.	-.471	-.570	-.714	-.559	-.214	-.247	-.162	-.005	-.258	-.249	-.257	-.256		.048
80.	-.437	-.558	-.694	-.531	-.209	-.245	-.162	-.005	-.284	-.261	-.273	-.256		.057
82.	-.403	-.546	-.679	-.483	-.209	-.255	-.165	-.007	-.308	-.291	-.293	-.255		.055
84.	-.369	-.534	-.663	-.418	-.208	-.266	-.170	-.006	-.332	-.300	-.308	-.263		.071
86.	-.344	-.522	-.638	-.364	-.212	-.272	-.169	-.005	-.366	-.320	-.328	-.272		.071
88.	-.311	-.509	-.617	-.331	-.215	-.276	-.169	-.005	-.380	-.330	-.346	-.279		.071
90.	-.281	-.492	-.599	-.315	-.222	-.276	-.173	-.006	-.405	-.347	-.364	-.281		.071
92.	-.257	-.482	-.574	-.301	-.231	-.276	-.175	-.007	-.430	-.387	-.386	-.281		.071
94.	-.224	-.467	-.548	-.295	-.246	-.276	-.171	-.007	-.455	-.424	-.405	-.282		.071
96.	-.191	-.451	-.514	-.297	-.257	-.276	-.171	-.007	-.484	-.474	-.422	-.282		.075
98.	-.162	-.436	-.462	-.302	-.265	-.277	-.170	-.006	-.517	-.516	-.438	-.283		.079
100.	-.140	-.422	-.392	-.312	-.274	-.269	-.170	-.005	-.539	-.556	-.455	-.283		.080
102.	-.113	-.407	-.333	-.328	-.276	-.268	-.164	-.005	-.548	-.586	-.481	-.284		.080
104.	-.087	-.389	-.302	-.338	-.277	-.270	-.163	-.005	-.575	-.616	-.486	-.279		.080
106.	-.052	-.370	-.285	-.340	-.280	-.270	-.166	-.009	-.615	-.646	-.531	-.279		.080
108.	-.027	-.333	-.269	-.347	-.264	-.271	-.174	-.007	-.644	-.658	-.566	-.266		.081
110.	-.023	-.326	-.265	-.351	-.265	-.263	-.166	-.005	-.665	-.682	-.602	-.262		.082
112.	-.015	-.310	-.266	-.354	-.263	-.263	-.167	-.005	-.691	-.713	-.640	-.264		.082
114.	-.004	-.310	-.268	-.350	-.249	-.256	-.168	-.005	-.713	-.732	-.677	-.263		.083
116.	.008	-.313	-.271	-.344	-.245	-.258	-.169	-.005	-.742	-.758	-.706	-.255		.083
118.	.020	-.326	-.269	-.338	-.247	-.256	-.170	-.005	-.764	-.779	-.733	-.248		.084

FLT 94 RUN11



## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/20.

FLT 94 RUN 11 TIME 51521.800

MU= .345 CLP= .00526 TEMP(U60)= 29.7 C = 85.47 F

X/C=	UPPER SURFACE CP VALUES							LOWER SURFACE CP VALUES						
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
120.	.021	-.340	-.262	-.324	-.242	-.251	-.163	-.005	-.785	-.797	-.762	-.251		.035
122.	.021	-.343	-.255	-.319	-.230	-.254	-.165	-.005	-.807	-.817	-.784	-.245		.035
124.	.022	-.347	-.243	-.313	-.228	-.256	-.167	-.005	-.829	-.838	-.801	-.241		.073
126.	.033	-.351	-.241	-.301	-.230	-.259	-.169	-.005	-.853	-.860	-.734	-.239		.079
128.	.034	-.356	-.234	-.307	-.233	-.256	-.171	-.005	-.877	-.882	-.700	-.234		.030
130.	.033	-.361	-.234	-.308	-.231	-.253	-.170	-.014	-.903	-.905	-.584	-.234		.031
132.	.035	-.361	-.237	-.311	-.231	-.249	-.167	-.024	-.927	-.919	-.479	-.237		.078
134.	.035	-.359	-.242	-.308	-.233	-.248	-.157	-.028	-.944	-.942	-.395	-.240		.074
136.	.030	-.366	-.245	-.307	-.230	-.251	-.151	-.034	-.973	-.957	-.353	-.237		.075
138.	.017	-.371	-.249	-.311	-.232	-.255	-.154	-.035	-.999	-.961	-.336	-.225		.075
140.	.004	-.377	-.253	-.312	-.235	-.248	-.171	-.036	-1.015	-.912	-.348	-.227		.077
142.	-.010	-.384	-.247	-.310	-.240	-.250	-.166	-.036	-1.032	-.809	-.354	-.222		.072
144.	-.023	-.397	-.262	-.314	-.244	-.254	-.154	-.037	-1.050	-.713	-.360	-.217		.059
146.	-.029	-.409	-.277	-.320	-.236	-.246	-.161	-.036	-1.060	-.636	-.354	-.210		.071
148.	-.039	-.417	-.292	-.326	-.240	-.250	-.156	-.036	-1.064	-.578	-.349	-.205		.073
150.	-.083	-.425	-.287	-.325	-.234	-.241	-.158	-.027	-1.058	-.533	-.334	-.201		.074
152.	-.124	-.433	-.296	-.328	-.237	-.243	-.161	-.007	-1.045	-.486	-.321	-.200		.066
154.	-.158	-.466	-.311	-.325	-.235	-.235	-.164	-.038	-.997	-.456	-.313	-.189		.066
156.	-.192	-.480	-.318	-.331	-.246	-.240	-.156	-.007	-.930	-.425	-.296	-.187		.067
158.	-.229	-.504	-.330	-.338	-.242	-.241	-.170	-.009	-.846	-.399	-.279	-.173		.057
160.	-.281	-.531	-.344	-.345	-.248	-.235	-.162	-.031	-.769	-.364	-.266	-.166		.058
162.	-.338	-.544	-.352	-.353	-.253	-.240	-.166	-.035	-.692	-.337	-.248	-.154		.058
164.	-.381	-.573	-.360	-.361	-.259	-.245	-.166	-.008	-.594	-.312	-.228	-.146		.048
166.	-.442	-.600	-.377	-.370	-.266	-.251	-.164	-.018	-.527	-.286	-.214	-.143		.049
168.	-.491	-.615	-.392	-.379	-.264	-.257	-.173	-.044	-.440	-.242	-.192	-.142		.051
170.	-.556	-.635	-.401	-.387	-.273	-.264	-.168	-.046	-.371	-.212	-.170	-.122		.052
172.	-.612	-.664	-.424	-.388	-.276	-.270	-.172	-.047	-.333	-.182	-.155	-.105		.053
174.	-.687	-.669	-.437	-.395	-.280	-.277	-.178	-.050	-.259	-.154	-.137	-.095		.054
176.	-.758	-.662	-.449	-.407	-.286	-.270	-.174	-.051	-.192	-.133	-.109	-.074		.056
178.	-.833	-.681	-.476	-.419	-.293	-.272	-.179	-.026	-.112	-.098	-.082	-.070		.057

FLT 94 RUN11

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/20.

FLT 94 RUN 11 TIME 51521.800

MU= .345 CLP= .00526 TEMP(U60)= 29.7 C = 85.47 F

X/C=	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZI40TH														
181.	-.933	-.709	-.505	-.427	-.304	-.279	-.193	-.012	-.045	-.067	-.068	-.073		.050
182.	-1.022	-.747	-.519	-.441	-.310	-.287	-.186	-.041	.028	-.032	-.052	-.061		.045
184.	-1.128	-.790	-.535	-.456	-.318	-.295	-.184	-.055	.102	.013	-.006	-.062		.046
186.	-1.252	-.822	-.550	-.469	-.330	-.302	-.178	-.023	.169	.033	.024	-.050		.047
188.	-1.382	-.860	-.566	-.482	-.322	-.288	-.179	-.015	.226	.068	.026	-.036		.048
190.	-1.518	-.907	-.582	-.496	-.331	-.296	-.185	-.015	.287	.104	.044	-.023		.049
192.	-1.661	-.957	-.608	-.510	-.340	-.304	-.190	-.016	.351	.130	.064	-.018		.036
194.	-1.829	-.989	-.655	-.525	-.350	-.313	-.195	-.016	.455	.159	.085	.008		.050
196.	-2.034	-1.039	-.674	-.540	-.351	-.322	-.201	-.016	.505	.205	.107	.018		.054
198.	-2.234	-1.072	-.702	-.556	-.331	-.332	-.206	-.017	.542	.245	.130	.043		.055
200.	-2.439	-1.128	-.736	-.554	-.347	-.333	-.191	-.017	.589	.258	.154	.044		.057
202.	-2.655	-1.163	-.758	-.569	-.363	-.323	-.197	-.018	.639	.288	.180	.045		.059
204.	-2.853	-1.223	-.780	-.586	-.361	-.321	-.198	-.019	.691	.325	.197	.055		.060
206.	-3.058	-1.258	-.801	-.595	-.371	-.312	-.185	-.019	.745	.363	.214	.067		.062
208.	-3.208	-1.292	-.824	-.613	-.380	-.322	-.189	-.018	.772	.380	.246	.070		.064
210.	-3.366	-1.330	-.848	-.629	-.389	-.332	-.191	-.014	.828	.420	.279	.073		.067
212.	-3.525	-1.370	-.876	-.642	-.401	-.342	-.197	-.015	.851	.432	.296	.075		.053
214.	-3.664	-1.415	-.882	-.661	-.418	-.350	-.195	-.021	.870	.440	.298	.074		.030
216.	-3.795	-1.455	-.901	-.672	-.432	-.335	-.191	-.028	.895	.480	.303	.093		.045
218.	-3.902	-1.482	-.926	-.667	-.424	-.333	-.196	-.029	.920	.494	.333	.100		.021
220.	-4.009	-1.501	-.947	-.662	-.429	-.343	-.201	-.030	.948	.510	.347	.103		-.006
222.	-4.115	-1.538	-.915	-.665	-.408	-.355	-.181	-.022	.979	.532	.366	.109		-.005
224.	-4.208	-1.559	-.939	-.668	-.414	-.264	-.171	-.017	.988	.546	.377	.113		.031
226.	-4.279	-1.584	-.963	-.672	-.396	-.256	-.175	-.018	.989	.560	.387	.090		.054
228.	-4.326	-1.625	-.988	-.672	-.405	-.263	-.180	-.018	1.014	.575	.396	.093		.055
230.	-4.325	-1.638	-1.013	-.677	-.416	-.269	-.184	-.019	1.014	.589	.406	.095		.009
232.	-4.327	-1.667	-1.030	-.693	-.422	-.276	-.189	-.019	1.019	.603	.412	.097		-.005
234.	-4.340	-1.673	-1.028	-.686	-.403	-.282	-.193	-.020	1.012	.617	.395	.100		-.005
236.	-4.348	-1.668	-1.051	-.694	-.404	-.289	-.197	-.020	1.018	.603	.404	.102		-.005
238.	-4.350	-1.661	-1.060	-.681	-.386	-.295	-.199	-.021	1.040	.603	.413	.104		-.005

FLT 94 RUN11

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT 94 RUN 11 TIME 51521.800

MU= .345 CLP= .00526 TEMP(U60)= 29.7 C = 85.47 F

X/C=	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
240.	-4.230	-1.692	-1.044	-.690	-.394	-.301	-.135	-.021	1.021	.615	.421	.117		-.005
242.	-4.197	-1.724	-1.044	-.672	-.402	-.307	-.172	-.021	1.031	.628	.416	.126		-.005
244.	-4.266	-1.669	-1.053	-.683	-.394	-.313	-.175	-.022	1.050	.600	.403	.110		-.005
246.	-4.388	-1.693	-1.059	-.694	-.380	-.318	-.179	-.022	1.018	.605	.410	.096		-.011
248.	-4.552	-1.680	-1.036	-.702	-.386	-.323	-.181	-.023	1.032	.615	.397	.100		-.042
250.	-4.532	-1.695	-1.036	-.675	-.392	-.328	-.171	-.023	1.047	.624	.387	.116		-.043
252.	-4.662	-1.632	-1.021	-.653	-.373	-.333	-.146	-.023	1.056	.629	.392	.117		-.044
254.	-4.878	-1.703	-1.023	-.661	-.363	-.337	-.148	-.023	1.018	.592	.397	.095		-.044
256.	-5.106	-1.704	-1.000	-.657	-.395	-.341	-.169	-.024	1.030	.599	.401	.086		-.045
258.	-5.341	-1.689	-1.003	-.637	-.380	-.344	-.193	-.024	1.040	.605	.405	.087		-.027
260.	-5.512	-1.681	-1.011	-.642	-.373	-.347	-.195	-.024	1.048	.610	.409	.088		-.026
262.	-5.651	-1.665	-.977	-.646	-.341	-.349	-.196	-.024	1.055	.614	.411	.089		-.046
264.	-5.681	-1.674	-.981	-.650	-.337	-.351	-.197	-.024	1.061	.617	.414	.089		-.046
266.	-5.677	-1.681	-.985	-.652	-.338	-.352	-.198	-.025	1.065	.619	.377	.089		-.046
268.	-5.635	-1.619	-.987	-.654	-.339	-.353	-.165	-.025	1.068	.621	.377	.090		-.046
270.	-5.583	-1.586	-.988	-.654	-.339	-.353	-.155	-.025	1.068	.621	.378	.090		-.046
272.	-5.524	-1.585	-.977	-.627	-.339	-.353	-.155	-.025	1.068	.592	.377	.090		-.046
274.	-5.456	-1.531	-.942	-.613	-.338	-.352	-.154	-.025	1.065	.569	.376	.089		-.046
276.	-5.381	-1.575	-.939	-.611	-.337	-.351	-.154	-.024	1.061	.567	.375	.089		-.046
278.	-5.298	-1.567	-.934	-.608	-.335	-.349	-.196	-.024	1.056	.564	.373	.089		-.046
280.	-5.208	-1.557	-.927	-.604	-.333	-.347	-.191	-.024	1.049	.560	.371	.088		-.006
282.	-5.158	-1.544	-.920	-.599	-.330	-.344	-.156	-.024	1.040	.556	.368	.087		-.006
284.	-5.109	-1.529	-.911	-.593	-.327	-.341	-.191	-.024	1.030	.550	.364	.087		-.006
286.	-5.003	-1.513	-.901	-.587	-.324	-.337	-.189	-.023	1.019	.544	.360	.086		-.006
288.	-4.941	-1.494	-.890	-.580	-.320	-.333	-.187	-.023	1.007	.538	.356	.085		-.006
290.	-4.874	-1.474	-.878	-.572	-.315	-.329	-.171	-.023	.993	.531	.351	.083		-.006
292.	-4.802	-1.452	-.865	-.563	-.311	-.324	-.157	-.023	.978	.526	.346	.082		-.005
294.	-4.735	-1.429	-.881	-.563	-.306	-.319	-.162	-.022	.970	.555	.340	.081		-.018
296.	-4.691	-1.404	-.875	-.579	-.300	-.313	-.137	-.022	.999	.513	.334	.079		-.041
298.	-4.619	-1.414	-.859	-.569	-.295	-.307	-.154	-.021	.980	.540	.328	.078		-.040

FLT 94 RUN11

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT 94 RUN 11 TIME 51521.800

MU= .345 CLP= .00526 TEMP(U60)= 29.7 C = 85.47 F

X/C=	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
300.	-4.562	-1.437	-.842	-.558	-.289	-.301	-.169	-.021	.961	.530	.322	.076		-.039
302.	-4.470	-1.408	-.825	-.546	-.283	-.295	-.166	-.021	.959	.519	.315	.075		-.039
304.	-4.394	-1.401	-.842	-.551	-.308	-.289	-.162	-.020	.970	.508	.309	.073		-.038
306.	-4.320	-1.388	-.824	-.554	-.336	-.283	-.159	-.020	.949	.497	.302	.072		-.037
308.	-4.244	-1.382	-.809	-.542	-.330	-.276	-.155	-.019	.927	.485	.295	.044		-.036
310.	-4.162	-1.362	-.819	-.548	-.322	-.270	-.151	-.019	.930	.474	.288	.068		-.035
312.	-4.086	-1.329	-.799	-.545	-.314	-.263	-.148	-.018	.927	.462	.281	.063		-.034
314.	-4.024	-1.325	-.787	-.552	-.306	-.256	-.144	-.018	.904	.451	.274	.040		-.034
316.	-3.932	-1.328	-.789	-.545	-.304	-.250	-.170	-.017	.881	.439	.267	.032		-.007
318.	-3.858	-1.299	-.779	-.531	-.319	-.243	-.166	-.017	.858	.428	.260	.014		-.004
320.	-3.793	-1.264	-.777	-.540	-.310	-.237	-.162	-.016	.866	.416	.253	.013		-.004
322.	-3.727	-1.263	-.756	-.528	-.312	-.231	-.158	-.016	.851	.405	.236	.013		-.004
324.	-3.660	-1.260	-.749	-.539	-.320	-.224	-.158	-.016	.828	.394	.215	.013		-.001
326.	-3.593	-1.225	-.756	-.525	-.323	-.259	-.176	-.015	.839	.383	.209	.012		.025
328.	-3.526	-1.195	-.746	-.533	-.327	-.310	-.171	-.015	.818	.372	.216	.012		.045
330.	-3.456	-1.192	-.742	-.518	-.331	-.301	-.166	-.037	.796	.362	.207	.012		.043
332.	-3.362	-1.188	-.728	-.507	-.332	-.293	-.161	-.052	.806	.352	.192	.011		.042
334.	-3.303	-1.183	-.726	-.515	-.323	-.284	-.157	-.014	.783	.342	.186	-.003		.041
336.	-3.261	-1.168	-.710	-.516	-.313	-.296	-.163	-.013	.761	.332	.181	-.022		.022
338.	-3.189	-1.145	-.690	-.509	-.321	-.297	-.170	-.013	.746	.323	.176	-.026		.016
340.	-3.107	-1.139	-.670	-.507	-.317	-.288	-.166	-.012	.748	.313	.171	-.025		.038
342.	-3.046	-1.133	-.692	-.501	-.308	-.280	-.161	-.012	.726	.304	.166	-.025		.037
344.	-2.974	-1.125	-.674	-.507	-.317	-.272	-.156	-.012	.706	.296	.161	-.024		.035
346.	-2.902	-1.118	-.676	-.501	-.309	-.287	-.166	-.011	.686	.287	.139	-.023		.034
348.	-2.833	-1.095	-.674	-.487	-.301	-.281	-.167	-.011	.680	.279	.135	-.024		.034
350.	-2.753	-1.080	-.659	-.485	-.312	-.297	-.162	-.011	.674	.271	.131	-.037		.033
352.	-2.692	-1.073	-.660	-.489	-.319	-.269	-.158	-.010	.655	.264	.127	-.036		.032
354.	-2.625	-1.065	-.655	-.480	-.313	-.281	-.154	-.010	.637	.257	.124	-.035		.002
356.	-2.554	-1.040	-.643	-.480	-.319	-.277	-.149	-.010	.636	.250	.120	-.034		-.002
358.	-2.485	-1.012	-.637	-.470	-.310	-.287	-.162	-.010	.609	.243	.117	-.038		.013

FLT 94 RUN11

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/22.

FLT 95 RUN 14 TIME 50390.400

MU= .244 CLP= .00703 TEMP(U60)= 26.5 C = 79.76 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
0.	-2.279	-.902	-.569	-.429	-.304	-.231	-.146	.001	.664	.285	.124	-.025		.031
2.	-2.273	-.885	-.558	-.421	-.284	-.226	-.140	.002	.656	.297	.127	-.018		.017
4.	-2.235	-.835	-.541	-.413	-.270	-.222	-.112	.013	.626	.281	.127	-.017		.017
6.	-2.194	-.757	-.524	-.405	-.260	-.218	-.112	.013	.578	.259	.117	-.022		.017
8.	-2.122	-.745	-.514	-.398	-.247	-.214	-.122	.013	.494	.224	.099	-.038		.016
10.	-2.051	-.763	-.505	-.391	-.243	-.210	-.120	.012	.425	.188	.065	-.054		.016
12.	-1.965	-.780	-.496	-.385	-.244	-.207	-.121	.012	.378	.153	.039	-.064		.016
14.	-1.893	-.780	-.488	-.390	-.253	-.203	-.132	.009	.352	.133	.020	-.074		.013
16.	-1.833	-.769	-.487	-.394	-.261	-.200	-.143	-.002	.327	.101	.008	-.078		.029
18.	-1.740	-.770	-.484	-.389	-.263	-.218	-.150	-.010	.287	.084	-.010	-.077		.039
20.	-1.664	-.772	-.476	-.394	-.265	-.240	-.151	-.010	.264	.068	-.027	-.087		.038
22.	-1.592	-.774	-.484	-.399	-.273	-.237	-.158	-.010	.225	.052	-.038	-.094		.037
24.	-1.521	-.782	-.493	-.404	-.274	-.240	-.155	-.010	.205	.037	-.048	-.104		.037
26.	-1.456	-.808	-.497	-.408	-.270	-.244	-.157	-.010	.202	.036	-.058	-.110		.036
28.	-1.420	-.827	-.510	-.415	-.272	-.249	-.162	-.010	.199	.023	-.062	-.115		.036
30.	-1.387	-.845	-.517	-.428	-.286	-.252	-.164	-.009	.196	.035	-.061	-.122		.035
32.	-1.367	-.830	-.521	-.432	-.297	-.248	-.165	-.005	.193	.034	-.060	-.124		.035
34.	-1.348	-.802	-.526	-.434	-.297	-.245	-.155	.001	.191	.021	-.059	-.128		.034
36.	-1.328	-.777	-.530	-.431	-.293	-.241	-.153	.001	.188	.019	-.058	-.130		.034
38.	-1.297	-.787	-.534	-.433	-.290	-.238	-.151	.001	.186	.008	-.065	-.134		.033
40.	-1.267	-.819	-.529	-.428	-.279	-.235	-.154	.000	.183	.006	-.074	-.135		.033
42.	-1.238	-.855	-.523	-.425	-.280	-.241	-.163	.000	.173	-.007	-.076	-.133		.033
44.	-1.208	-.877	-.517	-.427	-.279	-.252	-.167	.000	.132	-.019	-.082	-.138		.032
46.	-1.168	-.873	-.511	-.425	-.284	-.254	-.165	.000	.113	-.032	-.091	-.145		.032
48.	-1.130	-.844	-.506	-.427	-.283	-.251	-.163	.000	.085	-.043	-.099	-.152		.036
50.	-1.088	-.824	-.492	-.423	-.288	-.258	-.167	.000	.066	-.055	-.115	-.152		.041
52.	-1.044	-.794	-.486	-.425	-.287	-.259	-.165	.000	.037	-.067	-.125	-.165		.040
54.	-1.017	-.762	-.481	-.436	-.292	-.256	-.164	.000	.021	-.075	-.133	-.166		.040
56.	-1.008	-.749	-.495	-.441	-.299	-.264	-.173	.000	.034	-.071	-.133	-.164		.044
58.	-.995	-.759	-.529	-.450	-.314	-.274	-.176	.000	.048	-.059	-.124	-.163		.048

FLT 95 RUN14

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/22.

FLT 95 RUN 14 TIME 50390.400

MU= .244 CLP= .00703 TEMP(U60)= 26.5 C = 79.76 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES						
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90	
60.	-.980	-.793	-.592	-.465	-.331	-.274	-.162	.006	.057	-.050	-.114	-.147		.043	
62.	-.968	-.827	-.656	-.471	-.323	-.262	-.154	.014	.052	-.050	-.113	-.145		.033	
64.	-.949	-.836	-.710	-.464	-.319	-.248	-.153	.017	.038	-.053	-.120	-.144		.035	
66.	-.926	-.831	-.762	-.452	-.309	-.245	-.158	.011	.019	-.064	-.128	-.158		.038	
68.	-.896	-.807	-.796	-.436	-.298	-.254	-.167	.009	-.003	-.071	-.136	-.172		.038	
70.	-.873	-.777	-.828	-.425	-.278	-.254	-.176	.009	-.011	-.071	-.127	-.172		.043	
72.	-.863	-.751	-.844	-.414	-.276	-.263	-.171	.009	.001	-.070	-.143	-.171		.046	
74.	-.865	-.732	-.868	-.395	-.284	-.274	-.167	.008	.021	-.070	-.126	-.170		.046	
76.	-.874	-.739	-.882	-.386	-.292	-.274	-.167	.008	.035	-.065	-.142	-.169		.046	
78.	-.882	-.766	-.890	-.385	-.300	-.262	-.159	.015	.054	-.054	-.133	-.169		.046	
80.	-.892	-.803	-.904	-.389	-.308	-.261	-.156	.016	.074	-.048	-.124	-.168		.039	
82.	-.901	-.844	-.911	-.397	-.306	-.248	-.156	.016	.087	-.042	-.116	-.168		.037	
84.	-.911	-.878	-.919	-.404	-.297	-.248	-.156	.016	.092	-.037	-.116	-.163		.037	
86.	-.914	-.894	-.927	-.410	-.287	-.236	-.148	.016	.092	-.037	-.116	-.167		.043	
88.	-.913	-.903	-.933	-.412	-.269	-.236	-.146	.023	.093	-.042	-.116	-.168		.045	
90.	-.905	-.897	-.933	-.423	-.258	-.236	-.145	.026	.086	-.046	-.123	-.177		.046	
92.	-.901	-.886	-.931	-.440	-.241	-.236	-.144	.026	.073	-.052	-.129	-.189		.053	
94.	-.894	-.876	-.925	-.451	-.234	-.236	-.144	.034	.051	-.063	-.125	-.189		.054	
96.	-.876	-.849	-.923	-.448	-.233	-.237	-.145	.027	.025	-.067	-.143	-.191		.054	
98.	-.862	-.823	-.916	-.434	-.224	-.237	-.145	.027	.008	-.088	-.158	-.197		.062	
100.	-.844	-.790	-.909	-.411	-.218	-.238	-.145	.027	-.014	-.107	-.167	-.200		.063	
102.	-.823	-.749	-.902	-.380	-.218	-.238	-.146	.027	-.041	-.119	-.180	-.206		.063	
104.	-.812	-.727	-.896	-.343	-.221	-.239	-.146	.027	-.067	-.130	-.200	-.209		.064	
106.	-.795	-.719	-.890	-.316	-.229	-.240	-.147	.019	-.095	-.143	-.201	-.215		.064	
108.	-.775	-.721	-.885	-.299	-.234	-.241	-.159	.024	-.122	-.153	-.206	-.219		.064	
110.	-.755	-.724	-.876	-.288	-.244	-.242	-.159	.017	-.150	-.178	-.216	-.225		.064	
112.	-.734	-.727	-.865	-.288	-.251	-.243	-.160	.017	-.177	-.189	-.225	-.226		.064	
114.	-.714	-.732	-.860	-.297	-.255	-.245	-.159	.019	-.205	-.202	-.231	-.227		.065	
116.	-.695	-.725	-.852	-.308	-.263	-.247	-.160	.019	-.222	-.214	-.236	-.229		.066	
118.	-.664	-.730	-.834	-.327	-.268	-.252	-.162	.019	-.249	-.227	-.246	-.227		.075	

FLT 95 RUN14

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/22.

FLT 95 RUN 14 TIME 50390.400

MU= .244 CLP= .00703 TEMP(U60)= 26.5 C = 79.76 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
120.	-.655	-.724	-.792	-.348	-.279	-.263	-.163	.020	-.279	-.241	-.254	-.224		.076
122.	-.636	-.707	-.714	-.368	-.287	-.265	-.164	.018	-.297	-.254	-.259	-.226		.076
124.	-.617	-.701	-.620	-.381	-.290	-.267	-.165	.013	-.326	-.258	-.267	-.224		.076
126.	-.609	-.685	-.541	-.393	-.288	-.264	-.167	.020	-.344	-.271	-.269	-.218		.068
128.	-.590	-.680	-.492	-.406	-.290	-.259	-.168	.020	-.362	-.285	-.272	-.216		.069
130.	-.582	-.673	-.474	-.410	-.293	-.262	-.168	.020	-.380	-.289	-.274	-.213		.069
132.	-.563	-.653	-.468	-.414	-.296	-.264	-.162	.021	-.399	-.292	-.277	-.212		.066
134.	-.555	-.653	-.463	-.418	-.299	-.261	-.163	.018	-.403	-.295	-.275	-.214		.063
136.	-.537	-.652	-.451	-.413	-.292	-.257	-.165	.012	-.408	-.299	-.274	-.207		.072
138.	-.543	-.670	-.435	-.412	-.285	-.253	-.164	.012	-.414	-.302	-.277	-.202		.070
140.	-.551	-.679	-.434	-.407	-.285	-.249	-.159	.012	-.464	-.308	-.281	-.199		.063
142.	-.556	-.682	-.424	-.402	-.284	-.252	-.162	.010	-.470	-.311	-.280	-.198		.067
144.	-.551	-.663	-.423	-.397	-.276	-.255	-.164	.010	-.476	-.302	-.273	-.201		.072
146.	-.559	-.664	-.421	-.394	-.269	-.259	-.167	.010	-.482	-.294	-.273	-.198		.066
148.	-.567	-.660	-.423	-.399	-.269	-.254	-.169	.006	-.489	-.298	-.277	-.204		.066
150.	-.575	-.660	-.421	-.403	-.273	-.252	-.171	.001	-.494	-.301	-.274	-.203		.067
152.	-.580	-.666	-.415	-.398	-.277	-.255	-.169	.005	-.487	-.293	-.267	-.197		.068
154.	-.577	-.666	-.419	-.396	-.273	-.259	-.165	.011	-.492	-.295	-.260	-.183		.069
156.	-.586	-.677	-.416	-.399	-.274	-.253	-.167	.011	-.482	-.286	-.261	-.180		.070
158.	-.599	-.687	-.420	-.394	-.270	-.252	-.170	.011	-.472	-.276	-.248	-.183		.072
160.	-.621	-.693	-.417	-.393	-.271	-.256	-.166	.006	-.462	-.268	-.247	-.178		.073
162.	-.631	-.690	-.411	-.395	-.275	-.260	-.163	.001	-.448	-.269	-.242	-.171		.069
164.	-.642	-.687	-.416	-.394	-.270	-.253	-.165	.001	-.424	-.259	-.234	-.172		.063
166.	-.658	-.690	-.411	-.397	-.272	-.253	-.168	.001	-.412	-.247	-.226	-.166		.064
168.	-.680	-.695	-.417	-.396	-.267	-.257	-.164	.001	-.400	-.236	-.218	-.167		.065
170.	-.693	-.699	-.425	-.398	-.269	-.262	-.161	.001	-.383	-.224	-.218	-.170		.067
172.	-.711	-.704	-.419	-.398	-.274	-.225	-.164	.001	-.357	-.212	-.197	-.163		.068
174.	-.742	-.700	-.426	-.400	-.267	-.218	-.167	.001	-.337	-.204	-.191	-.165		.069
176.	-.767	-.697	-.434	-.400	-.270	-.222	-.170	.001	-.309	-.202	-.181	-.157		.070
178.	-.789	-.684	-.443	-.408	-.275	-.226	-.173	.001	-.287	-.189	-.171	-.159		.072

FLT 95 RUN14

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/22.

FLT 95 RUN 14 TIME 50390.400

MU= .244 CLP= .00703 TEMP(U60)= 26.5 C = 79.76 F

X/C=	UPPER SURFACE CP VALUES							LOWER SURFACE CP VALUES						
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
180.	-.822	-.662	-.451	-.415	-.268	-.231	-.166	.001	-.258	-.174	-.160	-.151		.065
182.	-.857	-.650	-.445	-.409	-.271	-.235	-.164	.001	-.241	-.146	-.149	-.141		.060
184.	-.893	-.655	-.453	-.404	-.277	-.240	-.168	.001	-.215	-.116	-.152	-.143		.061
186.	-.921	-.656	-.462	-.404	-.268	-.244	-.171	.001	-.184	-.118	-.140	-.146		.063
188.	-.949	-.662	-.470	-.405	-.272	-.249	-.162	.001	-.155	-.112	-.128	-.123		.064
190.	-.983	-.675	-.464	-.413	-.278	-.254	-.161	.001	-.122	-.103	-.116	-.126		.065
192.	-1.029	-.688	-.473	-.412	-.267	-.259	-.164	.001	-.089	-.096	-.118	-.126		.066
194.	-1.071	-.702	-.483	-.414	-.272	-.264	-.168	-.011	-.055	-.078	-.104	-.103		.068
196.	-1.114	-.716	-.492	-.423	-.278	-.269	-.171	-.014	-.031	-.059	-.092	-.105		.069
198.	-1.153	-.730	-.502	-.431	-.283	-.252	-.174	-.002	-.007	-.050	-.092	-.106		.058
200.	-1.204	-.745	-.512	-.429	-.289	-.257	-.162	.001	.033	-.039	-.077	-.095		.063
202.	-1.251	-.759	-.522	-.432	-.295	-.262	-.163	.001	.071	-.018	-.064	-.097		.073
204.	-1.284	-.774	-.532	-.440	-.298	-.268	-.166	.001	.099	.004	-.062	-.096		.060
206.	-1.340	-.789	-.543	-.449	-.288	-.273	-.169	.001	.128	.014	-.046	-.082		.058
208.	-1.416	-.805	-.553	-.457	-.296	-.278	-.173	.001	.158	.028	-.029	-.071		.060
210.	-1.475	-.820	-.564	-.453	-.315	-.283	-.176	.001	.208	.052	-.015	-.072		.061
212.	-1.547	-.836	-.575	-.457	-.305	-.289	-.179	.001	.250	.077	-.011	-.070		.062
214.	-1.609	-.852	-.586	-.465	-.311	-.294	-.183	.001	.324	.087	.008	-.054		.063
216.	-1.685	-.868	-.596	-.474	-.316	-.300	-.186	.001	.358	.105	.028	-.038		.064
218.	-1.749	-.908	-.607	-.483	-.322	-.300	-.168	.001	.364	.115	.043	-.026		.065
220.	-1.829	-.924	-.618	-.491	-.328	-.283	-.193	.001	.393	.136	.049	-.021		.066
222.	-1.917	-.940	-.629	-.500	-.334	-.288	-.195	.001	.432	.164	.064	-.009		.068
224.	-1.983	-.981	-.640	-.508	-.339	-.293	-.177	.001	.471	.174	.072	-.003		.069
226.	-2.117	-.998	-.650	-.517	-.345	-.298	-.180	.001	.512	.198	.094	.010		.070
228.	-2.219	-1.015	-.661	-.468	-.351	-.303	-.183	.001	.553	.207	.110	.017		.071
230.	-2.313	-1.031	-.671	-.470	-.356	-.308	-.186	.001	.568	.233	.120	.029		.072
232.	-2.463	-1.046	-.682	-.477	-.353	-.303	-.188	.001	.605	.242	.144	.029		.072
234.	-2.594	-1.062	-.704	-.484	-.344	-.286	-.187	.001	.648	.269	.159	.030		.052
236.	-2.723	-1.079	-.726	-.491	-.348	-.290	-.169	.001	.662	.303	.162	.030		.052
238.	-2.884	-1.148	-.736	-.497	-.353	-.294	-.171	.001	.703	.311	.174	.040		.053

FLT 95 RUN14



## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/22.

FLT 95 RUN 14 TIME 50390.400

MU= .244 CLP= .00703 TEMP(U60)= 26.5 C = 79.76 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
240.	-3.013	-1.163	-.745	-.503	-.358	-.298	-.173	.001	.748	.315	.200	.042		.054
242.	-3.151	-1.177	-.754	-.510	-.362	-.301	-.176	.001	.760	.346	.214	.031		.054
244.	-3.285	-1.194	-.763	-.515	-.366	-.305	-.178	.001	.768	.353	.217	.032		.055
246.	-3.385	-1.233	-.771	-.521	-.358	-.308	-.179	.001	.812	.386	.219	.032		.056
248.	-3.436	-1.245	-.778	-.526	-.348	-.311	-.181	.001	.821	.391	.234	.032		.056
250.	-3.585	-1.257	-.785	-.531	-.351	-.314	-.175	.008	.829	.395	.248	.033		.057
252.	-3.681	-1.267	-.792	-.535	-.354	-.300	-.157	.025	.873	.430	.250	.046		.051
254.	-3.742	-1.277	-.798	-.546	-.357	-.285	-.158	.025	.880	.433	.252	.055		.032
256.	-3.806	-1.285	-.803	-.584	-.344	-.286	-.160	.025	.886	.436	.253	.056		.033
258.	-3.889	-1.293	-.803	-.551	-.335	-.288	-.160	.025	.891	.438	.255	.056		.033
260.	-3.912	-1.299	-.792	-.574	-.353	-.290	-.161	.025	.895	.443	.256	.056		.033
262.	-3.963	-1.305	-.788	-.576	-.348	-.291	-.162	.025	.899	.475	.257	.056		.033
264.	-4.004	-1.299	-.790	-.572	-.339	-.292	-.151	.025	.902	.476	.258	.041		.033
266.	-4.021	-1.280	-.792	-.554	-.340	-.292	-.135	.025	.904	.477	.259	.034		.033
268.	-4.054	-1.281	-.793	-.555	-.341	-.293	-.135	.025	.905	.478	.259	.034		.033
270.	-4.056	-1.282	-.794	-.555	-.341	-.293	-.135	.025	.906	.478	.259	.034		.044
272.	-4.054	-1.282	-.793	-.555	-.341	-.293	-.135	.025	.905	.478	.259	.034		.059
274.	-4.048	-1.280	-.792	-.554	-.340	-.292	-.135	.025	.904	.477	.259	.052		.059
276.	-4.039	-1.277	-.790	-.553	-.339	-.292	-.134	.012	.902	.476	.258	.038		.047
278.	-4.027	-1.273	-.788	-.551	-.338	-.291	-.134	.015	.899	.475	.257	.053		.033
280.	-4.022	-1.282	-.785	-.549	-.337	-.290	-.134	.011	.895	.473	.256	.056		.033
282.	-4.025	-1.293	-.806	-.546	-.335	-.288	-.133	.001	.902	.471	.276	.056		.046
284.	-4.002	-1.286	-.804	-.553	-.333	-.287	-.132	.001	.924	.468	.278	.056		.058
286.	-3.988	-1.277	-.798	-.553	-.353	-.285	-.131	.001	.918	.474	.277	.075		.044
288.	-3.979	-1.284	-.792	-.546	-.332	-.283	-.130	.001	.911	.493	.274	.057		.032
290.	-3.947	-1.288	-.812	-.555	-.326	-.280	-.129	.001	.917	.489	.272	.075		.032
292.	-3.911	-1.293	-.805	-.539	-.346	-.278	-.128	.017	.933	.484	.292	.075		.032
294.	-3.902	-1.311	-.798	-.521	-.322	-.275	-.127	.024	.924	.491	.291	.054		.031
296.	-3.896	-1.310	-.814	-.516	-.340	-.272	-.125	.024	.929	.505	.288	.053		.031
298.	-3.853	-1.331	-.807	-.510	-.338	-.269	-.124	.023	.939	.512	.308	.052		.031

FLT 95 RUN14

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

FLT 95 RUN 14 TIME 50390.400

NASA-LANGLEY AH-1G

78/12/22.

MU= .244 CLP= .00703 TEMP(U60)= 26.5 C = 79.76 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
300.	-3.807	-1.392	-.823	-.504	-.334	-.266	-.123	.007	.944	.523	.304	.052		
302.	-3.759	-1.444	-.840	-.497	-.353	-.263	-.121	.018	.968	.530	.324	.071		.030
304.	-3.692	-1.482	-.879	-.531	-.349	-.259	-.119	.022	1.007	.566	.343	.071		.030
306.	-3.560	-1.538	-.902	-.550	-.343	-.225	-.118	.005	1.080	.616	.381	.091		.029
308.	-3.370	-1.409	-.834	-.501	-.315	-.252	-.116	.001	1.061	.594	.372	.104		.029
310.	-3.136	-1.176	-.726	-.456	-.288	-.218	-.095	.018	.908	.501	.319	.063		.029
312.	-2.882	-1.018	-.630	-.428	-.277	-.216	-.089	.021	.747	.409	.233	.024		.011
314.	-2.652	-.934	-.583	-.414	-.192	-.239	-.108	.003	.642	.336	.186	-.012		-.011
316.	-2.475	-.905	-.573	-.421	-.196	-.208	-.109	-.016	.605	.276	.142	-.027		-.015
318.	-2.359	-.910	-.569	-.420	-.249	-.207	-.107	-.001	.594	.249	.105	-.027		-.015
320.	-2.318	-.920	-.576	-.413	-.248	-.231	-.105	.001	.584	.245	.103	-.026		-.015
322.	-2.361	-.929	-.572	-.420	-.264	-.251	-.144	.001	.593	.241	.101	-.026		.003
324.	-2.443	-.916	-.582	-.432	-.276	-.247	-.144	.001	.613	.252	.103	-.025		.006
326.	-2.510	-.940	-.593	-.414	-.276	-.242	-.141	.001	.611	.256	.116	-.025		.023
328.	-2.584	-.950	-.602	-.402	-.286	-.242	-.139	.001	.620	.252	.119	-.024		.025
330.	-2.623	-.955	-.604	-.410	-.280	-.259	-.136	.001	.616	.263	.130	-.024		.024
332.	-2.628	-.980	-.600	-.435	-.275	-.254	-.134	.001	.625	.265	.122	-.023		.024
334.	-2.626	-.966	-.608	-.432	-.275	-.249	-.150	.001	.620	.277	.108	-.023		.041
336.	-2.623	-.967	-.607	-.438	-.283	-.244	-.147	.001	.603	.277	.111	-.028		.023
338.	-2.619	-.970	-.603	-.447	-.283	-.246	-.146	.001	.617	.272	.115	-.037		.040
340.	-2.594	-.972	-.602	-.440	-.289	-.258	-.160	.001	.610	.267	.102	-.036		.022
342.	-2.566	-.974	-.598	-.431	-.284	-.253	-.157	.001	.598	.261	.100	-.036		.038
344.	-2.519	-.956	-.596	-.438	-.278	-.248	-.154	-.001	.587	.256	.098	-.041		.022
346.	-2.489	-.957	-.593	-.445	-.279	-.243	-.151	-.011	.575	.251	.096	-.048		.037
348.	-2.442	-.958	-.598	-.437	-.283	-.238	-.148	.001	.585	.246	.094	-.047		.035
350.	-2.414	-.958	-.603	-.443	-.284	-.241	-.145	.001	.576	.242	.092	-.046		.020
352.	-2.369	-.957	-.598	-.449	-.295	-.249	-.142	.001	.606	.254	.090	-.045		.019
354.	-2.362	-.940	-.596	-.440	-.297	-.244	-.139	.001	.639	.268	.096	-.044		.019
356.	-2.317	-.938	-.591	-.433	-.292	-.240	-.137	.001	.650	.264	.101	-.044		.019
358.	-2.293	-.920	-.580	-.437	-.293	-.235	-.134	.001	.639	.276	.106	-.043		.018

FLT 95 RUN14

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 95 RUN 17 TIME 50544.200

MU= .241 CLP= .00722 TEMP(U60)= 31.5 C = 88.65 F

X/C=	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
0.	-2.270	-.949	-.525	-.429	-.258	-.215	-.118	.017	.536	.236	.100	-.062		.007
2.	-2.183	-.885	-.518	-.421	-.264	-.211	-.130	.016	.463	.195	.056	-.067		.014
4.	-2.072	-.852	-.509	-.416	-.274	-.207	-.144	.001	.394	.158	.025	-.075		.020
6.	-1.965	-.820	-.511	-.412	-.272	-.203	-.155	-.016	.333	.122	.009	-.076		.027
8.	-1.855	-.787	-.502	-.406	-.276	-.238	-.165	-.020	.290	.094	-.022	-.083		.026
10.	-1.742	-.771	-.505	-.407	-.272	-.248	-.174	-.023	.253	.078	-.036	-.092		.033
12.	-1.651	-.779	-.498	-.406	-.277	-.257	-.175	-.026	.235	.061	-.037	-.101		.039
14.	-1.575	-.783	-.490	-.414	-.275	-.257	-.172	-.025	.214	.039	-.047	-.110		.038
16.	-1.501	-.778	-.482	-.414	-.272	-.239	-.171	-.020	.166	.015	-.060	-.110		.037
18.	-1.429	-.787	-.498	-.415	-.268	-.244	-.169	-.017	.140	.006	-.081	-.127		.036
20.	-1.371	-.810	-.502	-.426	-.274	-.244	-.174	-.023	.121	-.014	-.082	-.136		.036
22.	-1.340	-.839	-.519	-.437	-.280	-.266	-.182	-.025	.143	-.008	-.089	-.134		.042
24.	-1.326	-.862	-.535	-.449	-.309	-.279	-.185	-.018	.180	.005	-.080	-.132		.039
26.	-1.322	-.855	-.540	-.455	-.318	-.277	-.183	-.009	.208	.013	-.078	-.130		.034
28.	-1.311	-.829	-.544	-.457	-.316	-.260	-.165	-.000	.191	.007	-.079	-.138		.027
30.	-1.292	-.803	-.546	-.452	-.312	-.254	-.156	.002	.163	-.006	-.088	-.137		.029
32.	-1.266	-.777	-.538	-.439	-.296	-.238	-.161	-.003	.139	-.012	-.075	-.134		.032
34.	-1.227	-.769	-.540	-.428	-.279	-.247	-.168	-.010	.113	-.016	-.082	-.141		.039
36.	-1.190	-.764	-.522	-.422	-.275	-.258	-.168	-.012	.089	-.029	-.101	-.157		.042
38.	-1.154	-.754	-.506	-.423	-.271	-.256	-.174	-.012	.064	-.047	-.120	-.155		.042
40.	-1.113	-.745	-.498	-.421	-.289	-.266	-.175	-.004	.041	-.067	-.128	-.154		.041
42.	-1.073	-.744	-.483	-.418	-.295	-.263	-.173	-.002	.010	-.073	-.136	-.169		.041
44.	-1.026	-.746	-.476	-.420	-.292	-.260	-.171	-.002	-.018	-.070	-.136	-.175		.040
46.	-.982	-.757	-.472	-.423	-.296	-.258	-.166	.002	-.039	-.086	-.150	-.179		.041
48.	-.962	-.775	-.481	-.433	-.302	-.256	-.172	.003	-.031	-.086	-.164	-.170		.048
50.	-.961	-.774	-.496	-.447	-.304	-.265	-.175	-.002	.005	-.070	-.147	-.168		.049
52.	-.957	-.767	-.514	-.458	-.319	-.274	-.174	-.002	.032	-.062	-.128	-.157		.048
54.	-.949	-.744	-.542	-.457	-.316	-.259	-.155	.005	.045	-.057	-.119	-.142		.040
56.	-.941	-.723	-.583	-.451	-.314	-.244	-.152	.012	.042	-.058	-.120	-.144		.030
58.	-.916	-.705	-.644	-.455	-.302	-.242	-.151	.012	.020	-.063	-.120	-.157		.036

FLT 95 RUN17

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 95 RUN 17 TIME 50544.200

MU= .241 CLP= .00722 TEMP(U60)= 31.5 C = 88.65 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
60.	-.885	-.697	-.698	-.453	-.298	-.242	-.157	.007	-.008	-.067	-.128	-.163		.037
62.	-.854	-.709	-.748	-.442	-.289	-.252	-.168	.004	-.010	-.067	-.140	-.169		.037
64.	-.857	-.718	-.788	-.430	-.287	-.262	-.175	.006	.013	-.066	-.123	-.167		.045
66.	-.867	-.715	-.822	-.425	-.296	-.262	-.165	.006	.031	-.065	-.122	-.166		.046
68.	-.874	-.738	-.849	-.416	-.309	-.269	-.164	.014	.045	-.058	-.122	-.165		.045
70.	-.881	-.767	-.863	-.419	-.309	-.257	-.163	.014	.058	-.053	-.121	-.164		.037
72.	-.897	-.806	-.878	-.419	-.315	-.256	-.153	.014	.062	-.053	-.120	-.164		.036
74.	-.903	-.836	-.893	-.426	-.311	-.255	-.152	.014	.071	-.045	-.120	-.163		.036
76.	-.903	-.866	-.905	-.419	-.302	-.252	-.151	.014	.083	-.043	-.120	-.162		.036
78.	-.912	-.883	-.910	-.402	-.292	-.241	-.152	.012	.088	-.040	-.119	-.164		.044
80.	-.911	-.892	-.917	-.391	-.278	-.242	-.147	.026	.089	-.038	-.115	-.168		.045
82.	-.900	-.891	-.921	-.377	-.269	-.241	-.147	.026	.079	-.046	-.115	-.165		.045
84.	-.897	-.880	-.919	-.367	-.260	-.238	-.146	.026	.065	-.058	-.118	-.160		.045
86.	-.886	-.868	-.918	-.351	-.252	-.228	-.139	.024	.051	-.061	-.131	-.171		.053
88.	-.874	-.847	-.914	-.344	-.245	-.232	-.139	.024	.028	-.061	-.144	-.190		.053
90.	-.863	-.816	-.908	-.328	-.243	-.240	-.148	.024	.011	-.088	-.153	-.190		.061
92.	-.842	-.784	-.904	-.312	-.238	-.239	-.148	.022	-.013	-.104	-.163	-.193		.061
94.	-.829	-.742	-.896	-.295	-.238	-.240	-.142	.022	-.039	-.115	-.178	-.193		.061
96.	-.809	-.722	-.888	-.287	-.239	-.240	-.150	.022	-.065	-.126	-.194	-.201		.061
98.	-.787	-.703	-.880	-.279	-.243	-.240	-.150	.020	-.091	-.137	-.194	-.206		.061
100.	-.776	-.704	-.868	-.279	-.248	-.241	-.150	.014	-.118	-.148	-.198	-.206		.061
102.	-.756	-.706	-.857	-.288	-.249	-.241	-.151	.014	-.132	-.160	-.203	-.207		.063
104.	-.735	-.709	-.850	-.298	-.258	-.242	-.153	.014	-.158	-.171	-.208	-.208		.070
106.	-.714	-.711	-.844	-.316	-.269	-.248	-.161	.016	-.173	-.183	-.217	-.208		.069
108.	-.694	-.714	-.833	-.327	-.274	-.251	-.160	.020	-.199	-.195	-.223	-.205		.062
110.	-.674	-.717	-.808	-.348	-.280	-.245	-.153	.014	-.214	-.207	-.224	-.203		.064
112.	-.666	-.710	-.751	-.358	-.283	-.247	-.157	.014	-.243	-.211	-.230	-.204		.072
114.	-.644	-.700	-.666	-.377	-.287	-.248	-.162	.014	-.255	-.218	-.234	-.200		.072
116.	-.636	-.693	-.580	-.387	-.287	-.251	-.152	.019	-.270	-.220	-.233	-.193		.073
118.	-.628	-.687	-.515	-.390	-.284	-.253	-.153	.019	-.286	-.233	-.235	-.186		.074

FLT 95 RUN17

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 95 RUN 17 TIME 50544.200

MU= .241 CLP= .00722 TEMP(U60)= 31.5 C = 88.65 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
120.	-.620	-.681	-.480	-.393	-.285	-.254	-.155	.019	-.233	-.234	-.237	-.175		.072
122.	-.613	-.675	-.460	-.396	-.288	-.256	-.156	.019	-.304	-.236	-.233	-.170		.065
124.	-.607	-.671	-.453	-.400	-.285	-.252	-.157	.020	-.307	-.238	-.231	-.176		.066
126.	-.611	-.677	-.456	-.406	-.284	-.248	-.155	.020	-.323	-.229	-.233	-.181		.064
128.	-.607	-.685	-.450	-.410	-.287	-.250	-.151	.019	-.326	-.232	-.231	-.178		.058
130.	-.613	-.692	-.445	-.415	-.285	-.245	-.153	.018	-.316	-.234	-.224	-.177		.058
132.	-.622	-.703	-.439	-.410	-.279	-.242	-.151	.017	-.319	-.227	-.225	-.179		.059
134.	-.640	-.716	-.441	-.407	-.279	-.244	-.148	.016	-.309	-.228	-.221	-.131		.059
136.	-.649	-.715	-.438	-.409	-.275	-.247	-.150	.016	-.311	-.218	-.221	-.177		.060
138.	-.667	-.716	-.441	-.407	-.275	-.241	-.156	.016	-.299	-.209	-.223	-.170		.061
140.	-.678	-.703	-.438	-.409	-.278	-.239	-.159	.016	-.290	-.210	-.212	-.170		.061
142.	-.697	-.700	-.441	-.404	-.282	-.242	-.155	.016	-.291	-.200	-.202	-.159		.062
144.	-.710	-.696	-.438	-.400	-.278	-.245	-.152	.017	-.279	-.192	-.194	-.157		.063
146.	-.729	-.685	-.440	-.397	-.286	-.239	-.148	.017	-.267	-.191	-.194	-.159		.064
148.	-.741	-.673	-.446	-.399	-.275	-.238	-.148	.015	-.252	-.177	-.136	-.153		.060
150.	-.767	-.671	-.435	-.410	-.263	-.242	-.143	.013	-.240	-.170	-.185	-.145		.055
152.	-.791	-.676	-.440	-.412	-.269	-.244	-.153	.008	-.227	-.175	-.176	-.139		.056
154.	-.813	-.681	-.446	-.411	-.276	-.236	-.160	.003	-.202	-.165	-.160	-.141		.056
156.	-.845	-.675	-.451	-.406	-.260	-.235	-.163	.002	-.187	-.152	-.158	-.143		.056
158.	-.862	-.677	-.458	-.409	-.261	-.240	-.156	.005	-.166	-.137	-.148	-.135		.053
160.	-.891	-.682	-.455	-.412	-.275	-.244	-.152	.008	-.139	-.117	-.138	-.136		.059
162.	-.923	-.686	-.462	-.414	-.279	-.235	-.155	.006	-.125	-.088	-.131	-.139		.060
164.	-.954	-.690	-.469	-.414	-.274	-.235	-.159	.005	-.109	-.090	-.121	-.132		.061
166.	-.987	-.695	-.465	-.417	-.277	-.239	-.154	.005	-.086	-.091	-.122	-.133		.055
168.	-1.021	-.700	-.474	-.420	-.282	-.244	-.151	.005	-.057	-.088	-.113	-.125		.050
170.	-1.057	-.705	-.482	-.422	-.277	-.247	-.155	.003	-.040	-.076	-.105	-.117		.058
172.	-1.093	-.718	-.491	-.423	-.292	-.237	-.159	.002	-.014	-.061	-.094	-.119		.057
174.	-1.130	-.731	-.486	-.424	-.287	-.208	-.162	.002	.018	-.051	-.095	-.099		.053
176.	-1.175	-.735	-.495	-.426	-.291	-.207	-.165	.002	.038	-.046	-.085	-.100		.054
178.	-1.226	-.741	-.503	-.427	-.296	-.211	-.158	.002	.059	-.029	-.073	-.102		.055

FLT 95 RUN17

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 95 RUN 17 TIME 50544.200

MU= .241 CLP= .00722 TEMP(U60)= 31.5 C = 88.65 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
180.	-1.267	-.755	-.499	-.426	-.288	-.215	-.156	.002	.081	-.013	-.061	-.092		.056
182.	-1.309	-.758	-.507	-.434	-.279	-.219	-.159	-.007	.105	-.001	-.061	-.082		.057
184.	-1.344	-.766	-.518	-.437	-.296	-.224	-.160	-.008	.129	.007	-.046	-.082		.053
186.	-1.391	-.781	-.526	-.439	-.304	-.227	-.165	-.010	.152	.016	-.049	-.072		.059
188.	-1.447	-.797	-.522	-.448	-.295	-.231	-.168	-.011	.178	.025	-.036	-.073		.060
190.	-1.495	-.812	-.532	-.453	-.285	-.236	-.159	-.011	.204	.044	-.021	-.075		.061
192.	-1.556	-.814	-.541	-.463	-.291	-.240	-.158	-.012	.256	.066	-.007	-.075		.052
194.	-1.616	-.824	-.553	-.474	-.294	-.246	-.159	-.009	.296	.078	-.004	-.062		.052
196.	-1.670	-.841	-.564	-.460	-.302	-.250	-.164	-.011	.301	.088	.008	-.050		.061
198.	-1.724	-.856	-.571	-.460	-.307	-.255	-.153	-.012	.321	.102	.010	-.040		.054
200.	-1.794	-.873	-.569	-.471	-.295	-.261	-.150	-.009	.338	.115	.027	-.051		.051
202.	-1.861	-.875	-.580	-.469	-.303	-.265	-.156	-.012	.359	.125	.027	-.038		.052
204.	-1.935	-.887	-.591	-.472	-.307	-.269	-.159	-.013	.392	.140	.042	-.026		.053
206.	-2.004	-.904	-.602	-.477	-.296	-.251	-.162	-.013	.426	.152	.046	-.026		.054
208.	-2.081	-.919	-.612	-.484	-.302	-.256	-.183	-.014	.447	.170	.062	-.024		.055
210.	-2.153	-.936	-.624	-.493	-.308	-.262	-.167	-.010	.473	.185	.069	-.010		.056
212.	-2.235	-.954	-.630	-.503	-.327	-.267	-.168	-.009	.492	.188	.086	-.007		.058
214.	-2.327	-.971	-.632	-.498	-.316	-.272	-.171	-.010	.520	.206	.091	.006		.059
216.	-2.422	-.989	-.653	-.503	-.322	-.277	-.174	-.010	.559	.219	.108	.006		.060
218.	-2.518	-1.027	-.650	-.512	-.328	-.282	-.177	-.010	.579	.223	.114	.011		.061
220.	-2.616	-1.049	-.668	-.521	-.334	-.287	-.180	-.010	.589	.244	.131	.024		.062
222.	-2.736	-1.067	-.687	-.529	-.339	-.292	-.184	-.010	.621	.274	.139	.024		.063
224.	-2.845	-1.085	-.691	-.532	-.345	-.297	-.187	-.010	.663	.287	.156	.030		.065
226.	-2.947	-1.123	-.715	-.540	-.350	-.296	-.189	-.010	.685	.295	.160	.044		.064
228.	-3.051	-1.144	-.727	-.548	-.353	-.279	-.165	-.005	.696	.320	.171	.046		.065
230.	-3.133	-1.161	-.738	-.539	-.352	-.283	-.168	-.005	.732	.332	.189	.046		.066
232.	-3.233	-1.179	-.749	-.544	-.341	-.287	-.171	-.005	.751	.337	.199	.047		.067
234.	-3.315	-1.195	-.760	-.552	-.346	-.291	-.173	-.005	.762	.364	.216	.048		.068
236.	-3.417	-1.212	-.770	-.559	-.358	-.295	-.175	-.006	.772	.376	.219	.048		.068
238.	-3.498	-1.228	-.780	-.567	-.371	-.299	-.178	-.006	.810	.380	.222	.049		.026

FLT 95 RUN17

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 95 RUN 17 TIME 50544.200

MU= .241 CLP= .00722 TEMP(U60)= 31.5 C = 88.65 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
240.	-3.600	-1.243	-.779	-.574	-.360	-.303	-.180	-.006	.827	.408	.233	.050		.026
242.	-3.673	-1.253	-.774	-.581	-.364	-.306	-.179	-.003	.837	.419	.251	.050		.027
244.	-3.751	-1.243	-.783	-.587	-.368	-.300	-.158	.016	.846	.424	.254	.051		.027
246.	-3.794	-1.256	-.791	-.593	-.372	-.280	-.160	.016	.855	.429	.256	.051		.027
248.	-3.831	-1.263	-.799	-.599	-.366	-.283	-.162	.017	.863	.433	.259	.052		.025
250.	-3.895	-1.273	-.806	-.581	-.354	-.286	-.163	.017	.871	.437	.261	.052		.006
252.	-3.961	-1.260	-.800	-.570	-.356	-.288	-.164	.017	.878	.440	.263	.053		.028
254.	-3.994	-1.272	-.794	-.542	-.361	-.290	-.167	.016	.881	.439	.263	.052		.028
256.	-4.018	-1.277	-.798	-.545	-.352	-.291	-.171	.012	.890	.446	.264	.053		.027
258.	-4.040	-1.284	-.802	-.549	-.338	-.294	-.162	.017	.896	.449	.268	.054		.028
260.	-4.027	-1.292	-.809	-.569	-.339	-.295	-.141	.017	.900	.451	.270	.054		.024
262.	-4.080	-1.302	-.811	-.575	-.345	-.295	-.151	.014	.896	.444	.266	.052		.007
264.	-4.054	-1.300	-.812	-.530	-.346	-.280	-.170	.008	.906	.484	.267	.053		.027
266.	-4.029	-1.303	-.814	-.531	-.342	-.279	-.142	.017	.908	.487	.272	.055		.029
268.	-4.004	-1.305	-.815	-.533	-.343	-.298	-.143	.017	.910	.488	.273	.055		.029
270.	-4.038	-1.306	-.817	-.546	-.343	-.282	-.143	.010	.910	.488	.273	.055		.029
272.	-4.038	-1.309	-.816	-.578	-.345	-.263	-.144	-.008	.906	.483	.270	.053		.029
274.	-4.034	-1.303	-.814	-.556	-.344	-.263	-.146	-.011	.908	.487	.270	.054		.028
276.	-4.059	-1.307	-.812	-.555	-.342	-.281	-.142	-.006	.906	.486	.272	.054		.029
278.	-4.069	-1.327	-.828	-.553	-.341	-.296	-.142	-.006	.906	.485	.271	.054		.029
280.	-3.989	-1.330	-.833	-.553	-.339	-.295	-.141	-.006	.938	.483	.270	.054		.021
282.	-3.946	-1.356	-.831	-.562	-.338	-.294	-.140	-.006	.933	.480	.268	.054		.003
284.	-3.960	-1.374	-.827	-.577	-.354	-.291	-.142	-.009	.925	.475	.264	.052		.003
286.	-3.967	-1.372	-.839	-.571	-.363	-.289	-.144	-.012	.923	.502	.276	.051		.002
288.	-3.964	-1.399	-.839	-.591	-.358	-.288	-.141	-.010	.953	.506	.286	.052		.002
290.	-3.932	-1.449	-.853	-.605	-.354	-.286	-.137	-.006	.950	.529	.302	.052		.003
292.	-3.897	-1.497	-.871	-.599	-.351	-.283	-.147	-.006	.979	.528	.306	.052		.003
294.	-3.860	-1.543	-.889	-.594	-.364	-.281	-.148	-.006	1.006	.554	.320	.051		.003
296.	-3.805	-1.626	-.925	-.587	-.368	-.278	-.133	-.006	1.044	.583	.340	.066		.003
298.	-3.715	-1.743	-.945	-.581	-.381	-.275	-.131	-.006	1.133	.627	.360	.071		.003

FLT 95 RUN17

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 95 RUN 17 TIME 50544.200

MU= .241 CLP= .00722 TEMP(U60)= 31.5 C = 88.65 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
300.	-3.664	-1.654	-.939	-.560	-.384	-.271	-.130	-.006	1.149	.609	.362	.070		.003
302.	-3.555	-1.369	-.845	-.504	-.379	-.225	-.116	-.006	.987	.533	.323	.053		-.007
304.	-3.340	-1.148	-.738	-.460	-.339	-.224	-.127	-.017	.817	.443	.240	.017		-.030
306.	-3.095	-1.025	-.676	-.457	-.273	-.230	-.151	-.040	.709	.354	.179	-.024		-.042
308.	-2.874	-.983	-.638	-.456	-.257	-.225	-.128	-.033	.638	.290	.128	-.048		-.053
310.	-2.683	-.964	-.627	-.465	-.268	-.222	-.104	-.002	.606	.246	.120	-.050		-.053
312.	-2.585	-.977	-.616	-.453	-.289	-.240	-.116	-.006	.604	.240	.116	-.050		-.020
314.	-2.553	-.974	-.627	-.449	-.304	-.244	-.136	-.013	.620	.239	.117	-.048		.001
316.	-2.560	-.984	-.620	-.454	-.303	-.262	-.155	-.010	.609	.234	.098	-.047		.012
318.	-2.611	-1.008	-.631	-.463	-.300	-.263	-.164	-.013	.606	.227	.108	-.048		.022
320.	-2.684	-1.014	-.640	-.476	-.313	-.259	-.163	-.015	.628	.232	.108	-.047		.021
322.	-2.747	-1.018	-.648	-.486	-.308	-.277	-.158	-.012	.649	.257	.109	-.045		.021
324.	-2.776	-1.023	-.657	-.477	-.317	-.278	-.164	-.006	.659	.272	.111	-.043		.021
326.	-2.782	-1.029	-.646	-.478	-.313	-.273	-.168	-.016	.658	.275	.110	-.042		.032
328.	-2.773	-1.033	-.654	-.478	-.308	-.268	-.165	-.010	.664	.286	.108	-.041		.040
330.	-2.779	-1.037	-.661	-.470	-.302	-.263	-.161	-.004	.651	.280	.106	-.041		.028
332.	-2.752	-1.040	-.650	-.470	-.331	-.259	-.158	-.004	.639	.275	.104	-.040		.031
334.	-2.724	-1.043	-.656	-.469	-.327	-.275	-.156	-.004	.633	.270	.102	-.039		.033
336.	-2.696	-1.032	-.661	-.469	-.321	-.272	-.153	-.016	.641	.265	.100	-.053		.037
338.	-2.663	-1.025	-.650	-.486	-.315	-.267	-.150	-.008	.629	.260	.098	-.052		.025
340.	-2.628	-1.026	-.654	-.492	-.309	-.262	-.147	-.004	.617	.255	.096	-.051		.019
342.	-2.578	-1.027	-.643	-.482	-.320	-.257	-.144	-.004	.617	.250	.094	-.050		.018
344.	-2.528	-1.027	-.646	-.482	-.314	-.252	-.141	-.004	.618	.254	.092	-.036		.018
346.	-2.491	-1.027	-.638	-.488	-.324	-.247	-.139	-.004	.629	.269	.091	-.048		.018
348.	-2.476	-1.027	-.657	-.485	-.318	-.243	-.149	-.004	.652	.275	.090	-.048		.017
350.	-2.458	-1.013	-.661	-.491	-.327	-.238	-.150	-.004	.663	.279	.103	-.047		.017
352.	-2.432	-1.022	-.664	-.491	-.321	-.233	-.147	.008	.670	.290	.116	-.044		.017
354.	-2.418	-1.090	-.646	-.473	-.320	-.227	-.136	.004	.713	.309	.136	-.022		.015
356.	-2.400	-1.164	-.601	-.450	-.313	-.223	-.131	.014	.727	.321	.147	-.021		.015
358.	-2.362	-1.066	-.550	-.428	-.291	-.219	-.129	.015	.669	.305	.142	-.024		.015

FLT 95 RUN17



## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/10/06.

FLT 96 RUN 2 TIME 42084.800

MU= 0.000 CLP= .00425 TEMP(U60)= 24.9 C = 76.87 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
0.	-1.070	-.646	-.394	-.352	-.224	-.196	-.120	-.059	-.005	-.068	-.110	-.096		.039
2.	-1.077	-.653	-.395	-.352	-.235	-.197	-.119	-.067	.016	-.056	-.095	-.095		.039
4.	-1.103	-.663	-.407	-.358	-.222	-.197	-.119	-.057	.036	-.049	-.095	-.095		.039
6.	-1.133	-.679	-.411	-.354	-.235	-.197	-.119	-.054	.056	-.039	-.082	-.095		.039
8.	-1.173	-.696	-.434	-.354	-.235	-.197	-.119	-.054	.056	-.031	-.081	-.095		.029
10.	-1.219	-.713	-.434	-.372	-.235	-.197	-.119	-.054	.125	-.005	-.070	-.095		.037
12.	-1.283	-.729	-.434	-.376	-.237	-.197	-.131	-.065	.165	.009	-.068	-.095		.039
14.	-1.341	-.745	-.438	-.376	-.249	-.197	-.133	-.065	.192	.019	-.055	-.095		.039
16.	-1.394	-.775	-.452	-.376	-.249	-.197	-.119	-.054	.212	.036	-.045	-.092		.039
18.	-1.446	-.780	-.466	-.387	-.249	-.197	-.119	-.054	.232	.041	-.041	-.087		.027
20.	-1.499	-.780	-.474	-.385	-.249	-.197	-.119	-.054	.251	.054	-.033	-.095		.026
22.	-1.550	-.794	-.473	-.384	-.248	-.197	-.118	-.054	.257	.059	-.027	-.094		.039
24.	-1.587	-.794	-.473	-.384	-.247	-.193	-.119	-.051	.274	.074	-.018	-.094		.040
26.	-1.622	-.795	-.473	-.384	-.247	-.193	-.128	-.048	.276	.076	-.018	-.094		.038
28.	-1.657	-.810	-.474	-.389	-.247	-.193	-.117	-.042	.295	.076	-.018	-.088		.027
30.	-1.676	-.812	-.483	-.388	-.248	-.198	-.117	-.052	.293	.073	-.012	-.083		.027
32.	-1.695	-.812	-.487	-.386	-.249	-.197	-.123	-.054	.293	.090	-.008	-.084		.030
34.	-1.724	-.810	-.486	-.397	-.247	-.198	-.132	-.053	.297	.092	-.006	-.083		.039
36.	-1.727	-.811	-.488	-.401	-.247	-.198	-.125	-.051	.314	.092	-.005	-.083		.040
38.	-1.750	-.813	-.488	-.400	-.248	-.197	-.118	-.052	.312	.090	.002	-.084		.034
40.	-1.780	-.827	-.487	-.398	-.249	-.185	-.119	-.054	.317	.093	.005	-.084		.026
42.	-1.808	-.834	-.500	-.401	-.247	-.193	-.118	-.052	.338	.108	.007	-.083		.027
44.	-1.849	-.844	-.502	-.399	-.248	-.197	-.118	-.053	.350	.106	.005	-.084		.027
46.	-1.859	-.843	-.500	-.396	-.249	-.197	-.119	-.054	.351	.106	.005	-.084		.026
48.	-1.881	-.842	-.500	-.399	-.247	-.198	-.117	-.052	.352	.114	.007	-.083		.027
50.	-1.918	-.853	-.515	-.401	-.247	-.198	-.117	-.051	.360	.123	.007	-.083		.027
52.	-1.936	-.860	-.515	-.401	-.249	-.197	-.118	-.054	.369	.122	.017	-.084		.026
54.	-1.954	-.860	-.513	-.398	-.249	-.197	-.119	-.054	.369	.122	.005	-.084		.026
56.	-1.960	-.847	-.500	-.400	-.248	-.197	-.119	-.054	.371	.123	.005	-.084		.026
58.	-1.960	-.844	-.501	-.398	-.247	-.198	-.117	-.051	.370	.113	.007	-.083		.027

FLT 96 RUN2

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/10/06.

FLT 96 RUN 2 TIME 42084.800

MU= 0.000 CLP= .00425 TEMP(U60)= 24.9 C = 76.87 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
60.	-1.960	-.842	-.500	-.396	-.248	-.197	-.132	-.054	.358	.107	.005	-.084		.026
62.	-1.972	-.842	-.500	-.396	-.247	-.198	-.131	-.051	.352	.108	.007	-.083		.027
64.	-1.963	-.842	-.501	-.400	-.250	-.202	-.130	-.051	.352	.108	.007	-.083		.027
66.	-1.961	-.844	-.502	-.401	-.256	-.211	-.117	-.051	.351	.106	.007	-.083		.027
68.	-1.951	-.844	-.502	-.401	-.249	-.202	-.119	-.054	.350	.106	.005	-.084		.026
70.	-1.961	-.844	-.502	-.401	-.249	-.215	-.119	-.054	.350	.106	.005	-.084		.026
72.	-1.961	-.844	-.501	-.396	-.249	-.208	-.121	-.052	.333	.106	.005	-.084		.026
74.	-1.943	-.842	-.492	-.396	-.248	-.197	-.129	-.045	.333	.093	.006	-.083		.026
76.	-1.943	-.842	-.486	-.396	-.247	-.198	-.117	-.051	.333	.108	.007	-.083		.027
78.	-1.943	-.839	-.486	-.396	-.247	-.198	-.117	-.051	.333	.092	.007	-.083		.027
80.	-1.940	-.826	-.486	-.396	-.247	-.198	-.122	-.051	.333	.092	.007	-.083		.031
82.	-1.926	-.826	-.486	-.396	-.247	-.198	-.130	-.051	.333	.092	-.001	-.083		.035
84.	-1.926	-.826	-.486	-.398	-.247	-.198	-.124	-.051	.333	.092	-.005	-.083		.027
86.	-1.922	-.827	-.488	-.401	-.247	-.198	-.117	-.051	.329	.092	-.005	-.083		.027
88.	-1.910	-.828	-.488	-.401	-.248	-.197	-.118	-.053	.312	.090	-.007	-.084		.027
90.	-1.910	-.828	-.488	-.401	-.249	-.197	-.119	-.054	.318	.090	.003	-.084		.026
92.	-1.910	-.828	-.488	-.401	-.249	-.197	-.119	-.054	.331	.095	.005	-.084		.034
94.	-1.910	-.828	-.488	-.401	-.249	-.197	-.119	-.054	.331	.100	.005	-.084		.031
96.	-1.910	-.828	-.488	-.401	-.261	-.181	-.119	-.054	.331	.096	.005	-.084		.026
98.	-1.919	-.828	-.488	-.401	-.249	-.196	-.119	-.054	.331	.098	.005	-.084		.026
100.	-1.927	-.828	-.488	-.398	-.249	-.197	-.119	-.054	.331	.090	.005	-.084		.026
102.	-1.926	-.827	-.486	-.396	-.248	-.197	-.119	-.054	.332	.091	.005	-.084		.026
104.	-1.915	-.826	-.486	-.396	-.247	-.198	-.129	-.051	.322	.092	.007	-.083		.037
106.	-1.873	-.813	-.486	-.396	-.247	-.198	-.117	-.051	.314	.092	.005	-.083		.029
108.	-1.858	-.810	-.486	-.396	-.247	-.195	-.117	-.051	.314	.092	-.005	-.083		.027
110.	-1.858	-.810	-.486	-.396	-.247	-.184	-.117	-.051	.314	.092	-.005	-.083		.027
112.	-1.858	-.810	-.481	-.386	-.247	-.194	-.117	-.051	.314	.092	-.005	-.083		.027
114.	-1.844	-.810	-.473	-.384	-.247	-.186	-.117	-.051	.314	.092	-.005	-.083		.027
116.	-1.842	-.810	-.473	-.384	-.247	-.198	-.117	-.051	.298	.092	-.005	-.083		.027
118.	-1.809	-.809	-.473	-.384	-.247	-.198	-.117	-.051	.295	.078	-.005	-.083		.027

FLT 96 RUN2

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/10/06.

FLT 96 RUN 2 TIME 42084.800

MU= 0.000 CLP= .00425 TEMP(U60)= 24.9 C = 76.87 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
120.	-1.791	-.794	-.473	-.384	-.240	-.198	-.117	-.051	.295	.076	-.011	-.077		.027
122.	-1.772	-.794	-.473	-.385	-.240	-.198	-.117	-.051	.276	.076	-.018	-.072		.027
124.	-1.739	-.791	-.474	-.389	-.239	-.193	-.117	-.051	.276	.076	-.018	-.078		.027
126.	-1.721	-.790	-.475	-.386	-.235	-.198	-.117	-.052	.274	.057	-.019	-.083		.027
128.	-1.688	-.780	-.464	-.376	-.235	-.197	-.125	-.054	.272	.057	-.023	-.092		.026
130.	-1.671	-.780	-.461	-.376	-.235	-.197	-.126	-.054	.255	.057	-.020	-.095		.026
132.	-1.653	-.780	-.461	-.376	-.235	-.197	-.119	-.054	.255	.057	-.020	-.095		.026
134.	-1.641	-.780	-.461	-.376	-.235	-.197	-.119	-.054	.255	.057	-.020	-.095		.026
136.	-1.635	-.780	-.461	-.376	-.235	-.197	-.119	-.054	.255	.057	-.020	-.095		.026
138.	-1.624	-.780	-.461	-.376	-.235	-.183	-.119	-.054	.262	.057	-.020	-.095		.026
140.	-1.624	-.780	-.461	-.376	-.235	-.180	-.119	-.054	.274	.063	-.020	-.095		.026
142.	-1.624	-.780	-.461	-.376	-.235	-.180	-.119	-.054	.283	.073	-.020	-.073		.026
144.	-1.642	-.780	-.463	-.376	-.235	-.196	-.119	-.054	.302	.081	-.008	-.084		.026
146.	-1.697	-.791	-.474	-.373	-.235	-.197	-.119	-.054	.322	.090	-.007	-.084		.026
148.	-1.756	-.795	-.473	-.372	-.235	-.180	-.119	-.054	.343	.091	.005	-.084		.026
150.	-1.838	-.807	-.473	-.372	-.233	-.198	-.117	-.051	.364	.102	.007	-.083		.027
152.	-1.849	-.810	-.473	-.375	-.233	-.198	-.117	-.051	.371	.108	.007	-.083		.027
154.	-1.885	-.826	-.479	-.383	-.234	-.195	-.117	-.051	.383	.106	.007	-.083		.027
156.	-1.919	-.826	-.487	-.388	-.235	-.180	-.119	-.054	.390	.108	.006	-.083		.026
158.	-1.941	-.828	-.488	-.389	-.234	-.185	-.117	-.051	.389	.119	.007	-.083		.027
160.	-1.959	-.844	-.494	-.384	-.240	-.197	-.119	-.054	.383	.122	.005	-.084		.026
162.	-1.991	-.842	-.494	-.401	-.248	-.197	-.118	-.054	.390	.124	.011	-.083		.026
164.	-1.994	-.844	-.488	-.401	-.248	-.198	-.117	-.051	.388	.122	.013	-.083		.027
166.	-2.011	-.844	-.487	-.397	-.249	-.197	-.119	-.054	.388	.122	.005	-.084		.026
168.	-2.009	-.842	-.488	-.401	-.248	-.198	-.118	-.053	.371	.109	.006	-.083		.026
170.	-1.994	-.840	-.487	-.395	-.248	-.198	-.117	-.052	.367	.105	.006	-.077		.027
172.	-1.985	-.822	-.477	-.384	-.247	-.198	-.123	-.053	.332	.092	-.002	-.087		.026
174.	-1.936	-.810	-.473	-.384	-.247	-.198	-.125	-.051	.314	.092	-.005	-.094		.027
176.	-1.897	-.805	-.473	-.385	-.237	-.198	-.123	-.051	.311	.090	-.014	-.094		.027
178.	-1.845	-.789	-.463	-.389	-.243	-.198	-.130	-.051	.291	.075	-.018	-.094		.027

FLT 96 RUN2

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/10/06.

FLT 96 RUN 2 TIME 42084.800

MU= 0.000 CLP= .00425 TEMP(U60)= 24.9 C = 76.87 F

X/C=	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
180.	-1.797	-.780	-.461	-.384	-.238	-.197	-.124	-.053	.269	.069	-.020	-.095		.027
182.	-1.717	-.730	-.449	-.376	-.235	-.197	-.127	-.054	.255	.057	-.020	-.095		.026
184.	-1.554	-.763	-.434	-.375	-.235	-.197	-.133	-.054	.248	.057	-.031	-.095		.025
186.	-1.601	-.748	-.434	-.370	-.223	-.197	-.123	-.054	.235	.051	-.033	-.095		.025
188.	-1.543	-.739	-.434	-.354	-.222	-.197	-.129	-.054	.223	.041	-.032	-.095		.026
190.	-1.505	-.722	-.434	-.354	-.235	-.197	-.122	-.054	.203	.041	-.033	-.095		.026
192.	-1.460	-.717	-.434	-.372	-.235	-.197	-.119	-.054	.209	.041	-.044	-.095		.026
194.	-1.461	-.741	-.437	-.376	-.235	-.197	-.131	-.054	.228	.050	-.031	-.093		.026
196.	-1.530	-.774	-.443	-.376	-.235	-.197	-.133	-.065	.250	.057	-.020	-.084		.037
198.	-1.594	-.730	-.444	-.376	-.235	-.197	-.119	-.055	.274	.057	-.020	-.084		.039
200.	-1.594	-.760	-.434	-.376	-.235	-.194	-.119	-.054	.261	.057	-.023	-.084		.039
202.	-1.577	-.755	-.434	-.376	-.235	-.184	-.119	-.054	.241	.057	-.033	-.033		.027
204.	-1.374	-.780	-.434	-.376	-.240	-.197	-.120	-.054	.252	.057	-.033	-.095		.027
206.	-1.559	-.748	-.441	-.376	-.249	-.197	-.133	-.056	.239	.057	-.033	-.090		.039
208.	-1.525	-.750	-.454	-.372	-.249	-.197	-.133	-.064	.253	.057	-.027	-.084		.033
210.	-1.533	-.779	-.461	-.377	-.248	-.197	-.129	-.053	.257	.060	-.019	-.083		.023
212.	-1.558	-.780	-.468	-.384	-.248	-.198	-.117	-.052	.274	.073	-.019	-.083		.040
214.	-1.595	-.781	-.473	-.384	-.248	-.198	-.122	-.053	.295	.076	-.011	-.033		.039
216.	-1.651	-.793	-.482	-.387	-.247	-.198	-.125	-.051	.295	.092	-.005	-.076		.036
218.	-1.696	-.811	-.488	-.400	-.247	-.198	-.117	-.051	.297	.092	.003	-.079		.027
220.	-1.729	-.817	-.487	-.396	-.248	-.186	-.113	-.052	.313	.090	-.003	-.084		.027
222.	-1.754	-.825	-.486	-.398	-.247	-.192	-.118	-.046	.318	.092	-.006	-.083		.027
224.	-1.807	-.840	-.524	-.405	-.247	-.198	-.124	-.045	.338	.095	.005	-.083		.027
226.	-1.849	-.860	-.504	-.407	-.248	-.211	-.132	-.053	.350	.106	.005	-.074		.027
228.	-1.873	-.851	-.500	-.404	-.249	-.215	-.124	-.054	.345	.101	.005	-.073		.026
230.	-1.900	-.852	-.502	-.407	-.247	-.215	-.127	-.052	.340	.091	.007	-.082		.027
232.	-1.919	-.850	-.501	-.401	-.248	-.199	-.132	-.053	.350	.096	.005	-.084		.026
234.	-1.927	-.850	-.488	-.401	-.249	-.197	-.133	-.054	.341	.098	.005	-.084		.035
236.	-1.927	-.844	-.488	-.398	-.249	-.197	-.121	-.045	.341	.090	.005	-.084		.039
238.	-1.937	-.843	-.489	-.396	-.248	-.197	-.131	-.053	.352	.091	.005	-.084		.039

FLT 96 RUN2

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/10/06.

FLT. 96 RUN 2 TIME 42084.800

MU= 0.000 CLP= .00425 TEMP(U60)= 24.9 C = 76.87 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES					LOWER SURFACE CP VALUES								
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
240.	-1.954	-.854	-.500	-.396	-.247	-.198	-.113	-.051	.364	.102	.007	-.083		.029
242.	-1.971	-.853	-.496	-.396	-.247	-.198	-.117	-.039	.371	.118	.010	-.080		.038
244.	-1.964	-.830	-.478	-.390	-.247	-.198	-.117	-.051	.371	.124	.020	-.074		.040
246.	-1.880	-.784	-.456	-.378	-.240	-.194	-.116	-.039	.327	.099	.012	-.083		.027
248.	-1.751	-.750	-.442	-.376	-.222	-.180	-.106	-.042	.267	.077	-.012	-.088		.026
250.	-1.638	-.733	-.434	-.376	-.222	-.180	-.119	-.044	.224	.060	-.025	-.095		.026
252.	-1.546	-.733	-.434	-.376	-.227	-.186	-.121	-.056	.201	.044	-.038	-.095		.027
254.	-1.507	-.750	-.449	-.377	-.235	-.197	-.133	-.066	.181	.041	-.039	-.090		.039
256.	-1.507	-.763	-.468	-.384	-.242	-.197	-.133	-.063	.198	.041	-.026	-.078		.039
258.	-1.541	-.794	-.473	-.385	-.248	-.198	-.132	-.053	.257	.076	-.012	-.073		.039
260.	-1.572	-.791	-.474	-.389	-.247	-.198	-.121	-.051	.256	.075	-.005	-.083		.036
262.	-1.574	-.790	-.465	-.386	-.240	-.188	-.103	-.052	.236	.057	-.015	-.076		.027
264.	-1.577	-.780	-.461	-.379	-.235	-.191	-.111	-.054	.236	.055	-.029	-.069		.026
266.	-1.591	-.786	-.472	-.387	-.235	-.197	-.125	-.054	.240	.044	-.033	-.095		.032
268.	-1.600	-.795	-.473	-.390	-.245	-.197	-.133	-.054	.260	.058	-.033	-.095		.039
270.	-1.635	-.809	-.487	-.401	-.247	-.198	-.131	-.052	.287	.063	-.020	-.084		.039
272.	-1.684	-.823	-.501	-.406	-.248	-.197	-.123	-.053	.312	.078	-.009	-.084		.039
274.	-1.754	-.845	-.515	-.413	-.260	-.197	-.119	-.046	.326	.095	.004	-.084		.039
276.	-1.824	-.883	-.555	-.420	-.262	-.197	-.119	-.051	.382	.118	.005	-.084		.039
278.	-1.895	-.933	-.555	-.426	-.262	-.197	-.119	-.054	.435	.138	.030	-.073		.039
280.	-1.946	-.955	-.550	-.408	-.275	-.214	-.119	-.045	.426	.138	.029	-.074		.039
282.	-1.950	-.897	-.506	-.399	-.261	-.197	-.119	-.042	.366	.114	.015	-.085		.029
284.	-1.889	-.827	-.469	-.392	-.244	-.198	-.117	-.039	.287	.081	-.009	-.094		.027
286.	-1.766	-.786	-.444	-.379	-.222	-.197	-.132	-.042	.231	.053	-.035	-.095		.037
288.	-1.613	-.739	-.434	-.376	-.222	-.200	-.133	-.054	.191	.020	-.051	-.095		.039
290.	-1.468	-.718	-.434	-.376	-.225	-.211	-.133	-.055	.137	-.002	-.070	-.095		.051
292.	-1.369	-.702	-.434	-.387	-.235	-.202	-.133	-.066	.093	-.019	-.074	-.095		.039
294.	-1.325	-.716	-.441	-.389	-.240	-.215	-.133	-.066	.084	-.023	-.082	-.095		.039
296.	-1.352	-.783	-.468	-.413	-.254	-.215	-.135	-.066	.134	.004	-.072	-.095		.039
298.	-1.453	-.865	-.510	-.426	-.268	-.221	-.144	-.064	.228	.038	-.046	-.095		.039

FLT 96 RUN2

AIRFOIL PRESSURE DATA					.9 BLADE RADIUS					NASA-LANGLEY AH-1G					78/10/06.				
FLT 96 RUN 2					TIME 42084.800					MU= 0.000 CLP= .00425					TEMP(U60)= 24.9 C = 76.87 F				
X/C= AZIMUTH		UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES									
		.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90				
300.	-1.592	-.920	-.521	-.425	-.275	-.224	-.129	-.051	.291	.056	-.026	-.095		.037					
302.	-1.692	-.881	-.498	-.412	-.268	-.215	-.119	-.042	.312	.073	-.027	-.095		.026					
304.	-1.631	-.818	-.479	-.399	-.254	-.205	-.123	-.042	.252	.056	-.040	-.095		.026					
306.	-1.570	-.772	-.465	-.390	-.249	-.197	-.133	-.042	.196	.024	-.053	-.102		.030					
308.	-1.455	-.758	-.470	-.401	-.249	-.208	-.133	-.042	.182	.011	-.066	-.098		.039					
310.	-1.475	-.802	-.485	-.417	-.257	-.215	-.138	-.046	.207	.030	-.050	-.094		.045					
312.	-1.569	-.863	-.523	-.422	-.281	-.215	-.138	-.053	.250	.048	-.044	-.095		.052					
314.	-1.647	-.870	-.504	-.412	-.278	-.215	-.125	-.054	.288	.073	-.024	-.095		.046					
316.	-1.645	-.827	-.487	-.409	-.253	-.215	-.119	-.047	.263	.069	-.020	-.095		.032					
318.	-1.623	-.819	-.486	-.411	-.235	-.215	-.126	-.040	.245	.060	-.029	-.094		.027					
320.	-1.655	-.864	-.529	-.413	-.246	-.215	-.130	-.047	.280	.059	-.042	-.094		.035					
322.	-1.726	-.922	-.527	-.420	-.261	-.215	-.142	-.053	.312	.057	-.045	-.095		.039					
324.	-1.759	-.918	-.513	-.418	-.261	-.215	-.136	-.054	.283	.050	-.045	-.095		.039					
326.	-1.703	-.873	-.497	-.405	-.249	-.215	-.133	-.044	.224	.033	-.047	-.095		.039					
328.	-1.587	-.811	-.466	-.384	-.247	-.213	-.133	-.042	.187	.007	-.072	-.100		.039					
330.	-1.445	-.745	-.427	-.376	-.233	-.199	-.145	-.042	.106	-.027	-.085	-.131		.039					
332.	-1.306	-.692	-.407	-.376	-.222	-.215	-.147	-.054	.039	-.050	-.101	-.139		.051					
334.	-1.205	-.656	-.407	-.376	-.225	-.215	-.160	-.066	.013	-.067	-.116	-.133		.052					
336.	-1.131	-.653	-.403	-.369	-.235	-.215	-.146	-.066	-.006	-.072	-.107	-.109		.065					
338.	-1.077	-.623	-.388	-.349	-.231	-.209	-.131	-.067	-.028	-.074	-.108	-.095		.064					
340.	-.990	-.567	-.373	-.339	-.217	-.191	-.120	-.069	-.045	-.083	-.108	-.095		.052					
342.	-.936	-.572	-.360	-.327	-.202	-.180	-.117	-.063	-.066	-.102	-.112	-.105		.051					
344.	-.917	-.557	-.354	-.328	-.196	-.180	-.122	-.066	-.086	-.104	-.126	-.123		.039					
346.	-.901	-.560	-.354	-.339	-.203	-.188	-.133	-.066	-.106	-.120	-.132	-.128		.042					
348.	-.901	-.573	-.354	-.339	-.209	-.197	-.133	-.066	-.106	-.120	-.132	-.108		.052					
350.	-.903	-.578	-.364	-.339	-.217	-.197	-.133	-.066	-.104	-.119	-.132	-.095		.052					
352.	-.924	-.594	-.367	-.339	-.222	-.197	-.127	-.061	-.084	-.102	-.124	-.095		.047					
354.	-.955	-.611	-.378	-.343	-.222	-.197	-.119	-.054	-.060	-.088	-.120	-.095		.039					
356.	-.978	-.621	-.381	-.353	-.222	-.197	-.119	-.061	-.025	-.084	-.110	-.095		.039					
358.	-1.025	-.629	-.382	-.354	-.222	-.197	-.119	-.066	-.006	-.072	-.107	-.095		.039					

FLT 96 RUN2

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 96 RUN 3 TIME 42324.700

MU= .147 CLP= .00432 TEMP(U60)= 28.6 C = 83.39 F

Y/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES						
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90	
0.	-1.179	-.687	-.426	-.354	-.239	-.219	-.141	-.062	.023	-.060	-.102	-.127		.027	
2.	-1.134	-.679	-.421	-.362	-.236	-.224	-.152	-.062	.004	-.072	-.106	-.133		.025	
4.	-1.087	-.672	-.416	-.359	-.234	-.215	-.150	-.072	-.031	-.087	-.117	-.136		.026	
6.	-1.057	-.663	-.412	-.355	-.231	-.224	-.151	-.071	-.069	-.102	-.128	-.140		.026	
8.	-1.013	-.642	-.407	-.351	-.229	-.221	-.160	-.070	-.089	-.117	-.139	-.144		.025	
10.	-.985	-.635	-.403	-.348	-.226	-.219	-.158	-.069	-.106	-.132	-.150	-.148		.025	
12.	-.943	-.630	-.398	-.355	-.230	-.216	-.156	-.065	-.141	-.131	-.154	-.152		.027	
14.	-.917	-.636	-.394	-.352	-.233	-.214	-.163	-.061	-.158	-.145	-.159	-.161		.037	
16.	-.893	-.630	-.392	-.354	-.231	-.212	-.170	-.063	-.174	-.143	-.169	-.170		.036	
18.	-.882	-.625	-.396	-.345	-.231	-.209	-.153	-.062	-.193	-.143	-.181	-.180		.035	
20.	-.843	-.613	-.396	-.348	-.227	-.207	-.152	-.069	-.206	-.171	-.190	-.174		.035	
22.	-.821	-.609	-.393	-.345	-.226	-.205	-.156	-.068	-.226	-.188	-.193	-.177		.035	
24.	-.797	-.593	-.387	-.346	-.225	-.202	-.157	-.071	-.255	-.197	-.200	-.178		.034	
26.	-.773	-.586	-.385	-.346	-.220	-.201	-.154	-.067	-.267	-.195	-.206	-.183		.034	
28.	-.752	-.581	-.379	-.343	-.220	-.199	-.158	-.061	-.283	-.210	-.209	-.184		.034	
30.	-.729	-.575	-.377	-.349	-.216	-.197	-.156	-.055	-.291	-.220	-.213	-.181		.033	
32.	-.704	-.570	-.374	-.346	-.215	-.195	-.161	-.060	-.305	-.230	-.214	-.188		.033	
34.	-.680	-.565	-.359	-.344	-.213	-.206	-.165	-.065	-.340	-.232	-.213	-.196		.033	
36.	-.669	-.562	-.369	-.344	-.211	-.219	-.164	-.064	-.354	-.244	-.230	-.204		.032	
38.	-.643	-.558	-.366	-.346	-.211	-.218	-.164	-.066	-.358	-.257	-.241	-.204		.032	
40.	-.623	-.553	-.363	-.348	-.210	-.217	-.163	-.066	-.381	-.263	-.240	-.211		.031	
42.	-.619	-.549	-.360	-.345	-.208	-.215	-.162	-.065	-.394	-.267	-.248	-.210		.038	
44.	-.606	-.545	-.357	-.338	-.228	-.227	-.161	-.057	-.407	-.272	-.247	-.208		.041	
46.	-.594	-.539	-.352	-.333	-.224	-.212	-.160	-.055	-.418	-.275	-.254	-.206		.041	
48.	-.572	-.534	-.347	-.331	-.201	-.225	-.155	-.050	-.430	-.277	-.250	-.204		.041	
50.	-.541	-.521	-.336	-.329	-.199	-.224	-.154	-.049	-.451	-.283	-.258	-.205		.041	
52.	-.492	-.505	-.337	-.327	-.198	-.222	-.153	-.048	-.489	-.302	-.267	-.216		.041	
54.	-.464	-.499	-.346	-.332	-.201	-.221	-.162	-.048	-.532	-.318	-.273	-.217		.041	
56.	-.468	-.518	-.355	-.332	-.218	-.220	-.162	-.057	-.522	-.312	-.269	-.216		.041	
58.	-.499	-.529	-.364	-.338	-.227	-.221	-.161	-.047	-.467	-.289	-.258	-.209		.050	

FLT 96 RUN3

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 96 RUN 3 TIME 42324.700

MU= .147 CLP= .00432 TEMP(U60)= 28.6 C = 83.39 F

Y/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
60.	-.536	-.550	-.369	-.344	-.234	-.227	-.160	-.047	-.416	-.262	-.247	-.196		.040
62.	-.554	-.552	-.368	-.337	-.234	-.216	-.160	-.048	-.395	-.257	-.237	-.196		.040
64.	-.562	-.547	-.366	-.341	-.230	-.215	-.162	-.051	-.389	-.254	-.231	-.192		.029
66.	-.564	-.547	-.364	-.334	-.222	-.214	-.158	-.048	-.401	-.255	-.233	-.186		.031
68.	-.559	-.543	-.363	-.348	-.226	-.218	-.160	-.052	-.412	-.251	-.234	-.189		.039
70.	-.547	-.545	-.369	-.347	-.230	-.225	-.160	-.056	-.414	-.253	-.228	-.193		.039
72.	-.558	-.555	-.372	-.355	-.236	-.224	-.167	-.060	-.386	-.242	-.224	-.189		.038
74.	-.571	-.565	-.376	-.350	-.240	-.223	-.159	-.060	-.355	-.229	-.214	-.185		.038
76.	-.608	-.577	-.384	-.349	-.239	-.223	-.158	-.059	-.296	-.202	-.197	-.179		.036
78.	-.657	-.600	-.395	-.361	-.237	-.223	-.156	-.056	-.251	-.187	-.187	-.174		.029
80.	-.707	-.618	-.396	-.354	-.237	-.215	-.152	-.053	-.225	-.180	-.189	-.175		.029
82.	-.740	-.618	-.395	-.355	-.236	-.209	-.151	-.049	-.210	-.186	-.187	-.174		.029
84.	-.760	-.627	-.397	-.358	-.235	-.210	-.150	-.046	-.210	-.177	-.166	-.173		.029
86.	-.761	-.624	-.397	-.349	-.230	-.209	-.146	-.044	-.215	-.190	-.188	-.174		.029
88.	-.760	-.615	-.386	-.346	-.235	-.208	-.147	-.042	-.229	-.189	-.189	-.174		.028
90.	-.755	-.609	-.386	-.347	-.228	-.209	-.145	-.039	-.242	-.190	-.185	-.173		.033
92.	-.739	-.599	-.377	-.341	-.227	-.208	-.146	-.040	-.254	-.202	-.189	-.174		.038
94.	-.714	-.587	-.377	-.339	-.228	-.208	-.147	-.042	-.254	-.206	-.189	-.174		.038
96.	-.693	-.574	-.365	-.335	-.228	-.208	-.147	-.048	-.269	-.213	-.189	-.175		.038
98.	-.674	-.568	-.365	-.336	-.226	-.210	-.145	-.047	-.300	-.211	-.186	-.173		.038
100.	-.656	-.555	-.355	-.335	-.226	-.210	-.145	-.046	-.309	-.216	-.186	-.173		.039
102.	-.639	-.549	-.349	-.332	-.217	-.211	-.145	-.046	-.323	-.225	-.205	-.174		.039
104.	-.615	-.542	-.349	-.326	-.230	-.210	-.148	-.050	-.340	-.227	-.209	-.175		.038
106.	-.598	-.530	-.348	-.325	-.219	-.211	-.148	-.049	-.348	-.232	-.208	-.167		.039
108.	-.579	-.521	-.339	-.323	-.210	-.211	-.148	-.049	-.364	-.240	-.218	-.168		.046
110.	-.570	-.508	-.331	-.327	-.209	-.197	-.150	-.051	-.370	-.240	-.220	-.169		.040
112.	-.573	-.509	-.333	-.318	-.193	-.177	-.147	-.047	-.381	-.241	-.218	-.168		.039
114.	-.556	-.509	-.330	-.320	-.210	-.197	-.141	-.052	-.387	-.241	-.221	-.170		.039
116.	-.553	-.503	-.323	-.316	-.192	-.176	-.138	-.047	-.400	-.243	-.220	-.168		.040
118.	-.546	-.493	-.318	-.315	-.195	-.176	-.142	-.052	-.407	-.246	-.224	-.163		.039

FLT 96 RUN3



## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/21.

FLT 96 RUN 3 TIME 42324.700

MU= .147 CLP= .00432 TEMP(U60)= 28.6 C = 83.39 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES				
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70 .90
AZIMUTH													
120.	-.535	-.494	-.315	-.317	-.196	-.176	-.153	-.053	-.409	-.256	-.225	-.164	.039
122.	-.536	-.485	-.306	-.307	-.197	-.177	-.143	-.052	-.422	-.260	-.226	-.165	.039
124.	-.526	-.473	-.301	-.310	-.198	-.178	-.143	-.045	-.427	-.250	-.223	-.166	.040
126.	-.517	-.465	-.298	-.300	-.199	-.180	-.132	-.051	-.430	-.253	-.218	-.166	.040
128.	-.505	-.456	-.294	-.301	-.200	-.181	-.134	-.053	-.432	-.263	-.219	-.163	.040
130.	-.507	-.456	-.290	-.303	-.201	-.182	-.134	-.053	-.434	-.265	-.211	-.159	.041
132.	-.497	-.447	-.287	-.295	-.202	-.183	-.135	-.059	-.437	-.266	-.201	-.160	.041
134.	-.487	-.450	-.289	-.296	-.203	-.185	-.136	-.052	-.440	-.256	-.203	-.161	.041
136.	-.491	-.451	-.291	-.290	-.199	-.186	-.137	-.052	-.443	-.257	-.204	-.163	.042
138.	-.493	-.445	-.294	-.295	-.196	-.187	-.138	-.053	-.447	-.259	-.206	-.164	.042
140.	-.486	-.446	-.289	-.292	-.198	-.188	-.139	-.054	-.452	-.262	-.209	-.160	.042
142.	-.490	-.439	-.286	-.274	-.200	-.190	-.137	-.057	-.453	-.252	-.211	-.158	.042
144.	-.492	-.450	-.290	-.282	-.200	-.192	-.130	-.054	-.441	-.249	-.210	-.158	.043
146.	-.499	-.474	-.293	-.285	-.195	-.193	-.131	-.055	-.444	-.243	-.214	-.161	.044
148.	-.503	-.483	-.296	-.287	-.194	-.195	-.134	-.058	-.432	-.245	-.209	-.155	.043
150.	-.507	-.496	-.298	-.290	-.196	-.196	-.135	-.059	-.419	-.244	-.208	-.154	.044
152.	-.517	-.507	-.301	-.292	-.198	-.187	-.129	-.059	-.410	-.236	-.201	-.156	.044
154.	-.532	-.519	-.304	-.295	-.200	-.185	-.133	-.060	-.409	-.234	-.201	-.157	.045
156.	-.537	-.524	-.295	-.298	-.192	-.187	-.131	-.060	-.396	-.226	-.193	-.141	.045
158.	-.542	-.529	-.298	-.301	-.192	-.189	-.135	-.061	-.382	-.223	-.194	-.141	.039
160.	-.555	-.526	-.301	-.304	-.194	-.191	-.133	-.062	-.376	-.216	-.185	-.142	.042
162.	-.568	-.526	-.304	-.301	-.196	-.193	-.130	-.062	-.372	-.212	-.187	-.134	.039
164.	-.574	-.522	-.306	-.299	-.198	-.195	-.132	-.063	-.358	-.206	-.178	-.135	.035
166.	-.589	-.512	-.298	-.302	-.200	-.197	-.133	-.063	-.335	-.201	-.179	-.136	.035
168.	-.602	-.503	-.304	-.305	-.203	-.196	-.135	-.064	-.321	-.196	-.170	-.126	.036
170.	-.609	-.493	-.314	-.301	-.205	-.185	-.136	-.065	-.325	-.189	-.172	-.120	.036
172.	-.616	-.482	-.308	-.300	-.205	-.187	-.138	-.066	-.317	-.185	-.172	-.130	.037
174.	-.634	-.472	-.315	-.304	-.199	-.189	-.139	-.066	-.302	-.167	-.164	-.132	.037
176.	-.646	-.474	-.324	-.307	-.209	-.191	-.128	-.078	-.299	-.158	-.163	-.128	.037
178.	-.653	-.480	-.318	-.311	-.201	-.193	-.129	-.068	-.289	-.159	-.155	-.113	.038

FLT 96 RUN3

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 96 RUN 3 TIME 42324.700

MU= .147 CLP= .00432 TEMP(U60)= 28.6 C = 83.39 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES							
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90		
AZIMUTH																
180.	-.674	-.485	-.322	-.314	-.203	-.195	-.130	-.069	-.273	-.151	-.153	-.114			.026	
182.	-.685	-.505	-.326	-.318	-.206	-.197	-.132	-.069	-.256	-.163	-.146	-.116			.026	
184.	-.708	-.513	-.330	-.322	-.208	-.195	-.133	-.070	-.239	-.152	-.143	-.113			.026	
186.	-.718	-.519	-.340	-.313	-.211	-.184	-.135	-.071	-.221	-.150	-.137	-.107			.026	
188.	-.743	-.525	-.344	-.316	-.213	-.186	-.136	-.072	-.204	-.138	-.133	-.108			.027	
190.	-.753	-.531	-.341	-.320	-.209	-.189	-.138	-.073	-.185	-.137	-.127	-.104			.027	
192.	-.780	-.537	-.345	-.324	-.211	-.191	-.136	-.074	-.166	-.122	-.122	-.105			.027	
194.	-.789	-.543	-.349	-.327	-.213	-.193	-.126	-.074	-.167	-.123	-.116	-.112			.028	
196.	-.816	-.549	-.353	-.331	-.209	-.195	-.128	-.075	-.148	-.124	-.118	-.113			.028	
198.	-.827	-.556	-.357	-.333	-.211	-.197	-.129	-.076	-.128	-.108	-.111	-.115			.028	
200.	-.854	-.567	-.372	-.325	-.213	-.200	-.131	-.077	-.110	-.108	-.106	-.100			.029	
202.	-.863	-.586	-.369	-.326	-.206	-.202	-.132	-.078	-.108	-.092	-.108	-.092			.029	
204.	-.872	-.592	-.378	-.323	-.213	-.204	-.133	-.079	-.086	-.090	-.099	-.084			.029	
206.	-.888	-.595	-.387	-.331	-.218	-.208	-.133	-.076	-.062	-.070	-.092	-.089			.030	
208.	-.935	-.604	-.378	-.339	-.220	-.210	-.133	-.074	-.041	-.070	-.082	-.094			.031	
210.	-.966	-.613	-.394	-.355	-.211	-.212	-.135	-.077	-.018	-.055	-.080	-.073			.031	
212.	-.999	-.637	-.387	-.362	-.223	-.214	-.137	-.078	.004	-.051	-.069	-.069			.031	
214.	-1.038	-.645	-.390	-.366	-.217	-.216	-.140	-.081	.026	-.040	-.070	-.071			.031	
216.	-1.083	-.662	-.426	-.369	-.231	-.218	-.142	-.084	.051	-.034	-.057	-.072			.031	
218.	-1.115	-.678	-.431	-.368	-.235	-.220	-.144	-.085	.075	-.021	-.056	-.073			.022	
220.	-1.146	-.693	-.431	-.366	-.238	-.222	-.145	-.086	.102	-.011	-.042	-.074			.016	
222.	-1.198	-.706	-.434	-.369	-.235	-.226	-.143	-.080	.131	.005	-.035	-.058			.017	
224.	-1.252	-.713	-.422	-.373	-.237	-.207	-.142	-.078	.157	.015	-.020	-.057			.029	
226.	-1.286	-.733	-.429	-.376	-.240	-.208	-.129	-.079	.183	.026	-.019	-.042			.034	
228.	-1.333	-.746	-.447	-.379	-.242	-.211	-.127	-.080	.197	.037	-.004	-.020			.022	
230.	-1.375	-.753	-.455	-.383	-.244	-.235	-.144	-.080	.213	.047	-.004	-.041			.018	
232.	-1.424	-.775	-.473	-.386	-.248	-.236	-.147	-.081	.241	.060	-.002	-.016			.018	
234.	-1.466	-.786	-.476	-.389	-.262	-.235	-.131	-.082	.268	.069	.012	-.017			.018	
236.	-1.517	-.810	-.486	-.405	-.250	-.217	-.149	-.082	.332	.084	.016	-.017			.018	
238.	-1.574	-.819	-.501	-.411	-.251	-.219	-.151	-.083	.358	.092	.029	-.017			.019	

FLT 96 RUN3

AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 96 RUN 3 TIME 42324.700

MU= .147 CLP= .00432 TEMP(U60)= 28.6 C = 83.39 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
240.	-1.632	-.844	-.505	-.414	-.253	-.225	-.151	-.083	.360	.125	.034	-.017		.019
242.	-1.690	-.872	-.516	-.417	-.255	-.245	-.135	-.084	.362	.137	.046	-.017		.019
244.	-1.748	-.879	-.530	-.419	-.263	-.247	-.154	-.085	.386	.138	.053	-.017		.019
246.	-1.826	-.905	-.542	-.422	-.269	-.240	-.155	-.085	.415	.157	.064	-.017		.019
248.	-1.886	-.913	-.554	-.424	-.267	-.225	-.152	-.085	.445	.162	.064	-.017		.019
250.	-1.967	-.959	-.567	-.443	-.279	-.226	-.137	-.086	.450	.183	.073	-.017		.017
252.	-2.043	-.963	-.578	-.445	-.280	-.227	-.138	-.086	.502	.186	.091	-.017		.005
254.	-2.131	-.970	-.580	-.447	-.281	-.228	-.138	-.087	.533	.208	.100	-.009		.019
256.	-2.261	-.997	-.595	-.448	-.272	-.229	-.139	-.087	.563	.232	.110	-.011		.020
258.	-2.391	-1.023	-.603	-.450	-.275	-.230	-.139	-.081	.592	.256	.118	-.018		.015
260.	-2.523	-1.043	-.605	-.451	-.284	-.230	-.139	-.071	.621	.258	.129	-.018		.007
262.	-2.668	-1.045	-.606	-.448	-.284	-.231	-.140	-.071	.650	.280	.136	-.018		.013
264.	-2.761	-1.040	-.607	-.435	-.285	-.216	-.140	-.071	.675	.283	.149	-.018		.001
266.	-2.772	-1.009	-.576	-.430	-.272	-.223	-.140	-.079	.660	.296	.154	-.018		.001
268.	-2.616	-.945	-.553	-.417	-.253	-.232	-.140	-.079	.564	.249	.141	-.018		.001
270.	-2.341	-.864	-.521	-.407	-.248	-.214	-.129	-.071	.437	.194	.108	-.018		.001
272.	-2.014	-.808	-.482	-.396	-.237	-.205	-.124	-.087	.341	.124	.065	-.021		.001
274.	-1.744	-.760	-.479	-.388	-.234	-.205	-.127	-.087	.247	.083	.028	-.021		-.010
276.	-1.550	-.737	-.421	-.378	-.217	-.204	-.126	-.092	.201	.060	.007	-.021		-.029
278.	-1.432	-.723	-.420	-.377	-.232	-.204	-.140	-.109	.184	.036	-.011	-.021		-.014
280.	-1.390	-.712	-.419	-.377	-.233	-.204	-.146	-.114	.172	.021	-.029	-.052		.012
282.	-1.374	-.724	-.418	-.376	-.232	-.226	-.160	-.127	.169	.021	-.029	-.068		.030
284.	-1.358	-.730	-.417	-.374	-.232	-.227	-.164	-.130	.182	.021	-.029	-.066		.023
286.	-1.367	-.727	-.416	-.373	-.231	-.226	-.148	-.116	.182	.021	-.029	-.068		.018
288.	-1.372	-.741	-.414	-.383	-.230	-.225	-.144	-.113	.181	.021	-.029	-.069		.018
290.	-1.366	-.744	-.421	-.387	-.229	-.224	-.143	-.112	.196	.021	-.029	-.082		.018
292.	-1.375	-.740	-.452	-.385	-.228	-.223	-.142	-.096	.206	.021	-.029	-.079		.018
294.	-1.392	-.754	-.458	-.383	-.230	-.222	-.142	-.095	.205	.021	-.029	-.070		.018
296.	-1.390	-.754	-.449	-.381	-.243	-.221	-.141	-.110	.203	.021	-.028	-.081		.017
298.	-1.400	-.749	-.458	-.379	-.242	-.219	-.140	-.094	.202	.021	-.028	-.081		.017

FLT 96 RUN3

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 96 RUN 3 TIME 42324.700

MU= .147 CLP= .00432 TEMP(U60)= 28.6 C = 93.39 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
300.	-1.396	-.765	-.455	-.376	-.240	-.218	-.139	-.093	.201	.021	-.028	-.080		-.000
302.	-1.406	-.761	-.450	-.378	-.239	-.217	-.140	-.092	.200	.020	-.028	-.080		.000
304.	-1.415	-.771	-.444	-.376	-.235	-.216	-.155	-.090	.224	.026	-.025	-.078		.017
306.	-1.427	-.765	-.450	-.373	-.230	-.223	-.149	-.082	.227	.027	-.021	-.075		.016
308.	-1.460	-.780	-.455	-.386	-.236	-.237	-.147	-.081	.248	.027	-.021	-.075		.018
310.	-1.449	-.776	-.461	-.383	-.244	-.235	-.146	-.080	.248	.046	-.021	-.074		.018
312.	-1.481	-.788	-.475	-.381	-.242	-.233	-.145	-.080	.246	.047	-.020	-.074		.018
314.	-1.490	-.784	-.478	-.392	-.240	-.231	-.144	-.079	.244	.047	-.020	-.073		.018
316.	-1.499	-.794	-.485	-.389	-.247	-.229	-.142	-.078	.242	.046	-.020	-.072		.018
318.	-1.510	-.791	-.486	-.388	-.252	-.226	-.141	-.078	.241	.046	-.020	-.072		.017
320.	-1.535	-.804	-.494	-.397	-.249	-.224	-.147	-.077	.261	.045	-.020	-.071		.017
322.	-1.541	-.810	-.493	-.393	-.247	-.235	-.155	-.076	.258	.045	-.019	-.070		.017
324.	-1.547	-.816	-.502	-.393	-.256	-.241	-.154	-.075	.255	.044	-.019	-.069		.017
326.	-1.552	-.833	-.500	-.400	-.258	-.224	-.152	-.075	.268	.044	-.019	-.090		.017
328.	-1.563	-.824	-.509	-.395	-.267	-.230	-.151	-.074	.318	.044	-.019	-.095		.017
330.	-1.581	-.815	-.505	-.391	-.255	-.233	-.149	-.073	.315	.043	-.019	-.094		.016
332.	-1.584	-.815	-.500	-.387	-.250	-.231	-.148	-.072	.312	.043	-.018	-.093		.016
334.	-1.577	-.816	-.510	-.383	-.260	-.228	-.146	-.071	.308	.042	-.018	-.092		.016
336.	-1.570	-.807	-.504	-.379	-.259	-.226	-.144	-.071	.305	.042	-.018	-.091		.016
338.	-1.563	-.809	-.499	-.374	-.256	-.223	-.143	-.070	.283	.041	-.018	-.077		.016
340.	-1.545	-.807	-.493	-.370	-.254	-.221	-.141	-.069	.246	.041	-.032	-.089		.016
342.	-1.528	-.793	-.487	-.366	-.251	-.237	-.140	-.068	.221	.032	-.032	-.088		.015
344.	-1.509	-.789	-.482	-.362	-.248	-.216	-.138	-.068	.208	.022	-.044	-.089		.015
346.	-1.464	-.767	-.476	-.358	-.246	-.232	-.136	-.067	.194	.013	-.045	-.110		.015
348.	-1.429	-.754	-.471	-.354	-.255	-.212	-.148	-.066	.171	.005	-.059	-.108		.026
350.	-1.394	-.745	-.466	-.376	-.239	-.227	-.148	-.065	.148	-.006	-.059	-.107		.017
352.	-1.350	-.740	-.464	-.381	-.237	-.224	-.146	-.076	.124	-.026	-.072	-.109		.026
354.	-1.312	-.732	-.454	-.376	-.241	-.220	-.163	-.083	.100	-.034	-.085	-.118		.027
356.	-1.280	-.709	-.444	-.372	-.248	-.218	-.147	-.070	.065	-.045	-.088	-.117		.026
358.	-1.233	-.699	-.447	-.360	-.246	-.215	-.146	-.070	.039	-.062	-.100	-.123		.013

FLT 96 RUN3

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 96 RUN 9 TIME 42851.700

MU= .246 CLP= .00427 TEMP(U60)= 29.8 C = 85.71 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES						
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90	
AZIMUTH															
0.	-1.110	-.677	-.417	-.357	-.241	-.218	-.156	-.073	.017	-.068	-.113	-.129		.016	
2.	-1.065	-.664	-.409	-.355	-.238	-.228	-.162	-.074	-.022	-.079	-.113	-.136		.016	
4.	-1.020	-.652	-.402	-.355	-.234	-.227	-.164	-.077	-.046	-.082	-.122	-.145		.015	
6.	-.992	-.640	-.407	-.354	-.230	-.223	-.170	-.076	-.059	-.096	-.132	-.143		.015	
8.	-.956	-.637	-.400	-.354	-.226	-.219	-.171	-.074	-.087	-.110	-.130	-.150		.022	
10.	-.933	-.631	-.406	-.354	-.222	-.215	-.168	-.073	-.103	-.117	-.139	-.158		.026	
12.	-.909	-.629	-.410	-.352	-.218	-.211	-.165	-.072	-.119	-.121	-.148	-.156		.026	
14.	-.894	-.633	-.404	-.350	-.215	-.207	-.162	-.070	-.134	-.127	-.146	-.162		.017	
16.	-.869	-.625	-.406	-.347	-.233	-.204	-.169	-.069	-.148	-.124	-.154	-.160		.022	
18.	-.848	-.624	-.400	-.351	-.238	-.201	-.166	-.065	-.161	-.121	-.160	-.165		.016	
20.	-.835	-.629	-.397	-.357	-.236	-.201	-.174	-.064	-.175	-.143	-.167	-.164		.023	
22.	-.822	-.533	-.402	-.352	-.243	-.235	-.153	-.055	-.139	-.155	-.170	-.170		.024	
24.	-.809	-.535	-.403	-.359	-.239	-.235	-.150	-.055	-.202	-.159	-.134	-.159		.023	
25.	-.797	-.523	-.401	-.351	-.233	-.243	-.159	-.054	-.215	-.175	-.133	-.173		.023	
28.	-.772	-.530	-.405	-.355	-.245	-.239	-.155	-.053	-.227	-.185	-.133	-.171		.023	
30.	-.750	-.534	-.411	-.370	-.252	-.236	-.174	-.062	-.239	-.195	-.135	-.191		.022	
30.	-.760	-.634	-.411	-.370	-.252	-.236	-.174	-.062	-.239	-.195	-.185	-.191		.022	
32.	-.750	-.637	-.415	-.366	-.255	-.236	-.172	-.060	-.250	-.196	-.189	-.189		.032	
34.	-.739	-.641	-.420	-.370	-.255	-.242	-.171	-.051	-.250	-.203	-.202	-.200		.031	
36.	-.729	-.644	-.425	-.374	-.258	-.239	-.177	-.051	-.246	-.212	-.209	-.206		.031	
38.	-.720	-.659	-.429	-.378	-.255	-.240	-.175	-.050	-.243	-.212	-.215	-.208		.030	
40.	-.711	-.663	-.433	-.380	-.251	-.245	-.173	-.049	-.265	-.219	-.222	-.206		.030	
42.	-.701	-.667	-.438	-.387	-.252	-.248	-.173	-.048	-.276	-.227	-.228	-.207		.030	
44.	-.706	-.683	-.443	-.392	-.259	-.252	-.177	-.044	-.275	-.227	-.229	-.213		.030	
46.	-.698	-.696	-.448	-.396	-.266	-.249	-.177	-.039	-.285	-.224	-.232	-.214		.029	
48.	-.690	-.703	-.453	-.401	-.272	-.252	-.175	-.039	-.282	-.233	-.234	-.212		.031	
50.	-.683	-.715	-.458	-.404	-.273	-.255	-.173	-.039	-.280	-.231	-.231	-.219		.034	
52.	-.677	-.719	-.456	-.401	-.271	-.253	-.171	-.038	-.290	-.239	-.234	-.222		.031	
54.	-.668	-.720	-.451	-.404	-.274	-.251	-.170	-.038	-.299	-.238	-.241	-.220		.033	
56.	-.653	-.717	-.447	-.403	-.274	-.248	-.172	-.038	-.298	-.247	-.247	-.224		.031	
58.	-.648	-.722	-.451	-.405	-.272	-.246	-.176	-.037	-.309	-.254	-.247	-.224		.036	

FLT 96 RUN9

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 96 RUN 9 TIME 42851.700

MU= .246 CLP= .00427 TEMP(U60)= 29.8 C = 85.71 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
60.	-.639	-.723	-.457	-.405	-.270	-.244	-.174	-.033	-.316	-.252	-.245	-.222		.039
62.	-.630	-.722	-.454	-.410	-.268	-.251	-.173	-.029	-.310	-.247	-.244	-.220		.044
64.	-.637	-.727	-.459	-.412	-.273	-.252	-.172	-.029	-.298	-.235	-.235	-.219		.039
66.	-.648	-.738	-.465	-.413	-.280	-.250	-.171	-.029	-.245	-.223	-.225	-.211		.035
68.	-.667	-.744	-.463	-.415	-.279	-.249	-.164	-.028	-.211	-.211	-.223	-.216		.035
70.	-.685	-.740	-.451	-.409	-.278	-.238	-.160	-.028	-.210	-.203	-.222	-.215		.034
72.	-.693	-.736	-.440	-.403	-.269	-.235	-.159	-.028	-.209	-.202	-.221	-.221		.034
74.	-.690	-.733	-.421	-.397	-.259	-.224	-.159	-.022	-.208	-.206	-.228	-.220		.034
76.	-.676	-.730	-.411	-.387	-.258	-.233	-.158	-.020	-.225	-.215	-.227	-.226		.034
78.	-.634	-.714	-.402	-.378	-.249	-.233	-.157	-.020	-.261	-.230	-.242	-.219		.034
80.	-.585	-.684	-.400	-.374	-.248	-.232	-.157	-.027	-.303	-.250	-.250	-.225		.034
82.	-.540	-.660	-.390	-.368	-.248	-.231	-.164	-.028	-.344	-.270	-.264	-.224		.040
84.	-.497	-.631	-.379	-.365	-.247	-.231	-.165	-.028	-.379	-.290	-.274	-.224		.048
86.	-.461	-.600	-.363	-.357	-.245	-.231	-.165	-.028	-.423	-.310	-.294	-.223		.049
88.	-.420	-.568	-.357	-.356	-.238	-.231	-.164	-.028	-.462	-.329	-.302	-.223		.049
90.	-.386	-.533	-.354	-.348	-.238	-.231	-.163	-.025	-.498	-.350	-.309	-.223		.050
92.	-.353	-.516	-.345	-.340	-.236	-.231	-.164	-.027	-.534	-.370	-.320	-.223		.057
94.	-.321	-.487	-.333	-.341	-.230	-.231	-.163	-.025	-.562	-.383	-.332	-.232		.058
96.	-.299	-.468	-.321	-.335	-.228	-.228	-.164	-.026	-.587	-.402	-.341	-.240		.058
98.	-.260	-.449	-.312	-.323	-.223	-.221	-.164	-.026	-.613	-.408	-.350	-.224		.058
100.	-.235	-.427	-.304	-.328	-.220	-.222	-.156	-.027	-.647	-.406	-.355	-.236		.065
102.	-.216	-.411	-.292	-.309	-.215	-.223	-.155	-.024	-.676	-.445	-.359	-.252		.058
104.	-.193	-.399	-.280	-.315	-.216	-.223	-.157	-.029	-.713	-.458	-.368	-.253		.059
106.	-.174	-.382	-.269	-.308	-.213	-.224	-.156	-.032	-.742	-.472	-.374	-.239		.067
108.	-.153	-.363	-.257	-.299	-.206	-.219	-.159	-.036	-.782	-.485	-.381	-.228		.066
110.	-.129	-.345	-.249	-.300	-.203	-.221	-.160	-.035	-.810	-.486	-.385	-.237		.067
112.	-.091	-.337	-.242	-.293	-.203	-.227	-.159	-.034	-.839	-.499	-.387	-.244		.067
114.	-.091	-.328	-.240	-.289	-.205	-.222	-.160	-.034	-.868	-.502	-.389	-.236		.065
116.	-.090	-.320	-.235	-.289	-.206	-.219	-.161	-.034	-.888	-.505	-.392	-.232		.060
118.	-.079	-.311	-.228	-.283	-.207	-.221	-.163	-.034	-.917	-.507	-.389	-.234		.061

FLT 96 RUN9

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 96 RUN 9 TIME 42851.700

MU= .246 CLP= .00427 TEMP(U60)= 29.8 C = 85.71 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
120.	-.069	-.307	-.229	-.282	-.209	-.215	-.164	-.035	-.937	-.502	-.389	-.236		.061
122.	-.062	-.311	-.231	-.281	-.205	-.212	-.166	-.036	-.958	-.508	-.394	-.238		.051
124.	-.063	-.313	-.233	-.278	-.198	-.206	-.163	-.038	-.979	-.509	-.391	-.240		.062
126.	-.060	-.327	-.235	-.280	-.198	-.213	-.160	-.043	-1.001	-.506	-.386	-.243		.062
128.	-.053	-.335	-.228	-.280	-.200	-.218	-.162	-.041	-1.024	-.511	-.388	-.238		.063
130.	-.053	-.355	-.230	-.278	-.202	-.210	-.157	-.044	-1.043	-.512	-.384	-.240		.063
132.	-.059	-.375	-.233	-.276	-.196	-.210	-.156	-.047	-1.054	-.510	-.379	-.235		.064
134.	-.066	-.384	-.235	-.275	-.197	-.202	-.157	-.048	-1.071	-.511	-.375	-.229		.065
136.	-.067	-.389	-.237	-.278	-.190	-.214	-.159	-.048	-1.085	-.505	-.370	-.232		.059
138.	-.074	-.393	-.231	-.276	-.192	-.206	-.153	-.042	-1.090	-.489	-.365	-.219		.057
140.	-.080	-.398	-.234	-.274	-.176	-.208	-.153	-.048	-1.103	-.476	-.360	-.221		.058
142.	-.088	-.402	-.236	-.278	-.178	-.210	-.155	-.050	-1.102	-.481	-.354	-.215		.058
144.	-.102	-.408	-.240	-.277	-.179	-.201	-.156	-.048	-1.095	-.481	-.340	-.210		.060
146.	-.109	-.414	-.243	-.278	-.183	-.201	-.150	-.043	-1.078	-.469	-.337	-.214		.052
148.	-.110	-.420	-.247	-.282	-.185	-.180	-.151	-.052	-1.058	-.458	-.332	-.215		.051
150.	-.140	-.426	-.250	-.278	-.188	-.182	-.153	-.044	-1.033	-.451	-.324	-.207		.052
152.	-.163	-.443	-.254	-.280	-.191	-.185	-.145	-.044	-.992	-.436	-.312	-.197		.053
154.	-.179	-.451	-.258	-.284	-.194	-.188	-.147	-.045	-.945	-.426	-.306	-.197		.053
156.	-.196	-.458	-.262	-.289	-.197	-.191	-.149	-.046	-.896	-.409	-.297	-.191		.054
158.	-.214	-.466	-.266	-.284	-.200	-.194	-.151	-.047	-.859	-.399	-.285	-.185		.055
160.	-.232	-.473	-.270	-.284	-.203	-.197	-.154	-.056	-.824	-.391	-.279	-.178		.055
162.	-.262	-.480	-.274	-.293	-.206	-.201	-.154	-.047	-.772	-.359	-.272	-.171		.045
164.	-.284	-.489	-.280	-.298	-.209	-.204	-.146	-.046	-.734	-.348	-.260	-.169		.047
166.	-.318	-.499	-.284	-.303	-.214	-.207	-.150	-.050	-.695	-.327	-.249	-.167		.048
168.	-.340	-.507	-.297	-.296	-.212	-.204	-.149	-.051	-.655	-.317	-.230	-.165		.049
170.	-.362	-.518	-.307	-.280	-.216	-.199	-.143	-.051	-.613	-.307	-.218	-.162		.049
172.	-.401	-.540	-.312	-.285	-.219	-.203	-.145	-.052	-.570	-.283	-.215	-.155		.050
174.	-.439	-.553	-.318	-.291	-.217	-.206	-.148	-.053	-.525	-.272	-.207	-.147		.048
176.	-.466	-.575	-.324	-.296	-.221	-.210	-.151	-.059	-.480	-.260	-.199	-.139		.040
178.	-.509	-.586	-.330	-.301	-.226	-.214	-.153	-.067	-.448	-.234	-.190	-.130		.041

FLT 96 RUN9

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 96 RUN 9 TIME 42851.700

MU= .246 CLP= .00427 TEMP(U60)= 29.8 C = 85.71 F

X/C=	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
AZIMUTH														
180.	-.550	-.597	-.335	-.304	-.221	-.218	-.150	-.068	-.395	-.222	-.181	-.129		.041
182.	-.581	-.609	-.343	-.312	-.229	-.212	-.144	-.068	-.333	-.205	-.160	-.114		.042
184.	-.629	-.614	-.348	-.315	-.228	-.222	-.147	-.069	-.316	-.176	-.148	-.111		.043
186.	-.677	-.600	-.367	-.323	-.239	-.232	-.150	-.070	-.274	-.150	-.136	-.103		.044
188.	-.728	-.593	-.378	-.332	-.246	-.223	-.152	-.070	-.222	-.149	-.124	-.102		.045
190.	-.782	-.606	-.400	-.339	-.253	-.222	-.156	-.074	-.185	-.131	-.103	-.095		.046
192.	-.844	-.627	-.408	-.345	-.258	-.226	-.160	-.077	-.138	-.102	-.102	-.072		.047
194.	-.912	-.653	-.432	-.352	-.250	-.231	-.163	-.078	-.081	-.085	-.078	-.084		.039
196.	-.979	-.691	-.441	-.359	-.254	-.235	-.156	-.070	-.028	-.060	-.063	-.061		.033
198.	-1.051	-.712	-.465	-.367	-.259	-.221	-.154	-.067	.031	-.038	-.049	-.061		.034
200.	-1.135	-.739	-.475	-.374	-.264	-.224	-.157	-.069	.068	-.030	-.035	-.047		.035
202.	-1.220	-.774	-.487	-.381	-.269	-.228	-.160	-.070	.106	-.010	-.020	-.009		.036
204.	-1.301	-.796	-.511	-.389	-.274	-.233	-.163	-.071	.157	.000	-.004	-.009		.036
206.	-1.380	-.827	-.521	-.397	-.280	-.237	-.166	-.073	.211	.012	.012	-.009		.024
208.	-1.467	-.849	-.531	-.404	-.285	-.242	-.153	-.074	.251	.034	.027	-.010		.021
210.	-1.549	-.882	-.541	-.412	-.291	-.247	-.154	-.076	.298	.056	.031	-.010		.021
212.	-1.643	-.921	-.557	-.420	-.296	-.251	-.157	-.077	.358	.080	.049	-.010		.022
214.	-1.746	-.942	-.581	-.428	-.302	-.252	-.160	-.079	.382	.090	.067	-.010		.022
216.	-1.833	-.960	-.592	-.436	-.303	-.241	-.163	-.080	.409	.107	.082	-.010		.022
218.	-1.937	-.977	-.603	-.444	-.295	-.260	-.146	-.081	.444	.150	.083	-.011		.023
220.	-2.027	-.995	-.613	-.452	-.300	-.245	-.149	-.083	.481	.165	.091	-.011		.023
222.	-2.114	-1.012	-.624	-.460	-.305	-.249	-.152	-.082	.495	.168	.112	-.011		.005
224.	-2.204	-1.054	-.635	-.468	-.303	-.254	-.154	-.068	.529	.192	.125	-.011		.005
226.	-2.294	-1.072	-.646	-.476	-.304	-.258	-.157	-.069	.568	.199	.127	-.011		.005
228.	-2.412	-1.089	-.656	-.484	-.312	-.262	-.159	-.070	.580	.225	.129	-.011		.002
230.	-2.479	-1.106	-.667	-.491	-.305	-.255	-.157	-.071	.589	.231	.142	-.002		-.016
232.	-2.572	-1.123	-.677	-.499	-.310	-.243	-.142	-.072	.629	.234	.154	-.004		-.016
234.	-2.633	-1.140	-.687	-.506	-.314	-.246	-.144	-.073	.638	.264	.156	-.001		-.016
236.	-2.705	-1.156	-.681	-.510	-.306	-.250	-.146	-.074	.647	.268	.158	.006		-.016
238.	-2.767	-1.165	-.683	-.500	-.301	-.253	-.148	-.075	.656	.272	.160	.006		-.016

FLT 96 RUN9



## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 96 RUN 9 TIME 42851.700

MU= .246 CLP= .00427 TEMP(U60)= 29.8 C = 85.71 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES					
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70	.90
240.	-2.802	-1.160	-.692	-.506	-.291	-.256	-.150	-.076	.665	.275	.162	-.007		-.017
242.	-2.835	-1.174	-.682	-.507	-.286	-.259	-.152	-.077	.673	.279	.164	-.013		-.017
244.	-2.869	-1.188	-.685	-.497	-.289	-.262	-.143	-.078	.681	.282	.166	-.013		-.017
246.	-2.892	-1.200	-.692	-.502	-.292	-.244	-.131	-.079	.688	.285	.168	-.013		-.017
248.	-2.899	-1.200	-.678	-.507	-.295	-.237	-.132	-.080	.695	.288	.170	-.013		-.017
250.	-2.916	-1.182	-.682	-.503	-.279	-.239	-.148	-.081	.701	.290	.171	-.013		-.018
252.	-2.909	-1.176	-.687	-.494	-.297	-.241	-.145	-.081	.707	.293	.173	-.013		-.018
254.	-2.899	-1.185	-.693	-.497	-.282	-.217	-.136	-.082	.700	.295	.174	-.013		-.018
256.	-2.886	-1.177	-.672	-.501	-.281	-.240	-.154	-.082	.682	.297	.175	-.013		-.018
258.	-2.871	-1.170	-.676	-.504	-.282	-.246	-.163	-.099	.686	.299	.176	-.014		-.018
260.	-2.853	-1.176	-.680	-.506	-.284	-.247	-.145	-.105	.690	.300	.154	-.014		-.018
262.	-2.816	-1.162	-.680	-.508	-.309	-.213	-.139	-.106	.693	.301	.155	-.014		-.018
264.	-2.795	-1.155	-.659	-.496	-.286	-.248	-.139	-.106	.695	.302	.155	-.014		-.018
266.	-2.783	-1.158	-.661	-.488	-.287	-.250	-.140	-.106	.696	.303	.155	-.014		-.018
268.	-2.774	-1.159	-.662	-.488	-.287	-.250	-.162	-.107	.697	.304	.156	-.014		-.018
270.	-2.754	-1.160	-.662	-.489	-.287	-.250	-.166	-.107	.698	.304	.156	-.014		-.018
272.	-2.742	-1.135	-.662	-.488	-.287	-.250	-.166	-.107	.697	.285	.156	-.009		-.018
274.	-2.715	-1.128	-.661	-.488	-.287	-.250	-.165	-.106	.696	.273	.155	.002		-.018
276.	-2.701	-1.125	-.659	-.487	-.286	-.249	-.165	-.106	.670	.272	.155	-.014		-.018
278.	-2.668	-1.122	-.657	-.485	-.285	-.248	-.165	-.106	.657	.271	.155	-.014		-.018
280.	-2.650	-1.117	-.645	-.483	-.284	-.247	-.164	-.105	.654	.270	.147	-.014		-.018
282.	-2.611	-1.112	-.626	-.481	-.283	-.246	-.163	-.105	.651	.269	.130	-.014		-.018
284.	-2.591	-1.105	-.623	-.478	-.281	-.245	-.162	-.104	.647	.267	.129	-.013		-.018
286.	-2.574	-1.098	-.619	-.475	-.279	-.243	-.161	-.104	.643	.266	.129	-.013		-.018
288.	-2.525	-1.090	-.614	-.471	-.287	-.253	-.160	-.103	.638	.264	.128	-.013		-.018
290.	-2.503	-1.081	-.609	-.467	-.288	-.258	-.159	-.102	.633	.251	.127	-.013		-.018
292.	-2.450	-1.067	-.603	-.463	-.272	-.250	-.157	-.101	.595	.232	.114	-.013		-.017
294.	-2.394	-1.032	-.597	-.459	-.269	-.265	-.156	-.100	.587	.228	.102	-.013		-.017
296.	-2.307	-1.016	-.591	-.454	-.267	-.262	-.154	-.099	.580	.226	.101	-.013		-.017
298.	-2.221	-.982	-.584	-.449	-.264	-.260	-.152	-.098	.540	.195	.100	-.013		-.017

FLT 96 RUN9

## AIRFOIL PRESSURE DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 96 RUN 9 TIME 42851.700

MU= .246 CLP= .00427 TEMP(U60)= 29.8 C = 85.71 F

X/C= AZIMUTH	UPPER SURFACE CP VALUES								LOWER SURFACE CP VALUES				
	.02	.10	.20	.35	.50	.70	.80	.90	.02	.10	.20	.50	.70 .90
300.	-2.135	-.964	-.561	-.439	-.260	-.240	-.150	-.097	.500	.193	.085	-.013	-.017
302.	-2.045	-.931	-.547	-.417	-.257	-.224	-.148	-.096	.464	.188	.063	-.012	-.016
304.	-1.936	-.910	-.522	-.411	-.254	-.239	-.146	-.094	.458	.158	.055	-.012	-.016
306.	-1.859	-.880	-.510	-.405	-.250	-.246	-.144	-.093	.452	.132	.039	-.012	-.016
308.	-1.797	-.867	-.503	-.400	-.246	-.243	-.154	-.102	.445	.125	.033	-.012	-.016
310.	-1.723	-.854	-.495	-.394	-.243	-.239	-.150	-.099	.438	.103	.017	-.055	-.016
312.	-1.663	-.841	-.507	-.387	-.239	-.235	-.150	-.089	.406	.095	.013	-.079	-.015
314.	-1.624	-.827	-.501	-.389	-.235	-.232	-.157	-.087	.327	.075	-.004	-.080	-.015
316.	-1.593	-.814	-.492	-.394	-.231	-.228	-.154	-.086	.302	.074	-.006	-.079	-.015
318.	-1.571	-.813	-.484	-.387	-.245	-.246	-.152	-.097	.297	.064	-.023	-.077	-.015
320.	-1.532	-.803	-.477	-.380	-.243	-.245	-.149	-.100	.292	.047	-.024	-.076	-.014
322.	-1.492	-.795	-.487	-.383	-.238	-.241	-.147	-.099	.287	.047	-.024	-.107	-.014
324.	-1.478	-.781	-.478	-.384	-.234	-.237	-.144	-.097	.269	.046	-.041	-.105	-.014
326.	-1.461	-.781	-.469	-.377	-.230	-.232	-.157	-.095	.250	.034	-.040	-.103	-.014
328.	-1.434	-.774	-.464	-.381	-.225	-.228	-.157	-.093	.231	.022	-.041	-.102	-.013
330.	-1.407	-.775	-.470	-.380	-.223	-.247	-.155	-.092	.216	.022	-.055	-.114	-.013
332.	-1.395	-.766	-.465	-.384	-.236	-.242	-.152	-.090	.211	.021	-.057	-.114	-.013
334.	-1.391	-.768	-.469	-.381	-.246	-.237	-.149	-.088	.207	.021	-.069	-.124	-.013
336.	-1.386	-.773	-.465	-.386	-.242	-.233	-.163	-.086	.187	.007	-.068	-.118	-.012
338.	-1.365	-.761	-.468	-.382	-.237	-.232	-.160	-.085	.176	.000	-.067	-.109	.003
340.	-1.354	-.764	-.465	-.374	-.237	-.240	-.157	-.083	.172	.000	-.065	-.117	.004
342.	-1.348	-.769	-.466	-.367	-.248	-.225	-.154	-.081	.169	.000	-.069	-.114	.004
344.	-1.342	-.755	-.464	-.360	-.254	-.235	-.151	-.080	.166	.000	-.077	-.112	.004
346.	-1.336	-.758	-.463	-.353	-.249	-.231	-.150	-.078	.163	.000	-.076	-.110	.004
348.	-1.329	-.761	-.462	-.373	-.250	-.226	-.160	-.077	.159	.000	-.074	-.113	.003
350.	-1.304	-.746	-.460	-.380	-.254	-.229	-.157	-.075	.137	-.015	-.073	-.118	.005
352.	-1.279	-.732	-.451	-.372	-.249	-.236	-.154	-.074	.133	-.017	-.078	-.116	.017
354.	-1.236	-.718	-.442	-.366	-.251	-.232	-.155	-.072	.111	-.033	-.083	-.113	.017
356.	-1.194	-.704	-.434	-.371	-.253	-.227	-.163	-.071	.069	-.033	-.089	-.111	.016
358.	-1.152	-.690	-.426	-.364	-.241	-.232	-.160	-.070	.047	-.049	-.100	-.123	.016

FLT 96 RUN9

## APPENDIX B. - AIRFOIL COEFFICIENT DATA

The listings of airfoil coefficient data are presented as reduced copies of two-page sets of computer listings. The top of each page segment contains identification as to flight number, run number, and time. The ratio of Reynolds number per unit Mach number is identified as  $RN/M$ ; blade azimuth is listed in degrees.  $C_N$ ,  $C_C$ , and  $C_M$  identify columns of normal-force, chordwise-force, and pitching-moment coefficients, respectively.

The data of Table V serves as a guide to this set of listings.

## AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/19.

FLT 92 RUN 27 TIME 45028.000

RN/M= 14.59 MILLION

ROTOR SPEED= 34.3221 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
0.0	.417	-.033	.015	.602	60.0	.266	-.009	-.005	.743	120.0	.158	-.008	-.016	.743
2.0	.392	-.030	.010	.608	62.0	.272	-.008	-.004	.746	122.0	.154	-.008	-.016	.740
4.0	.379	-.027	.003	.614	64.0	.274	-.009	-.004	.748	124.0	.152	-.008	-.016	.737
6.0	.359	-.024	.001	.619	66.0	.274	-.009	-.002	.751	126.0	.157	-.008	-.017	.734
8.0	.348	-.022	-.002	.625	68.0	.280	-.009	-.001	.753	128.0	.158	-.008	-.017	.730
10.0	.338	-.020	-.004	.630	70.0	.288	-.010	.001	.755	130.0	.161	-.008	-.017	.727
12.0	.323	-.018	-.006	.636	72.0	.295	-.011	.001	.757	132.0	.164	-.008	-.016	.723
14.0	.304	-.016	-.008	.642	74.0	.297	-.012	.002	.758	134.0	.171	-.008	-.017	.719
16.0	.296	-.014	-.007	.647	76.0	.295	-.012	.003	.760	136.0	.174	-.009	-.016	.715
18.0	.309	-.015	-.007	.652	78.0	.295	-.012	.003	.761	138.0	.175	-.009	-.015	.711
20.0	.333	-.015	-.006	.658	80.0	.238	-.012	.004	.762	140.0	.177	-.009	-.014	.707
22.0	.344	-.016	-.003	.663	82.0	.276	-.013	.005	.763	142.0	.179	-.009	-.015	.702
24.0	.345	-.017	-.001	.668	84.0	.270	-.012	.003	.764	144.0	.179	-.008	-.014	.698
26.0	.330	-.019	.004	.673	86.0	.257	-.012	.002	.764	146.0	.185	-.009	-.015	.693
28.0	.323	-.018	.003	.679	88.0	.249	-.011	.001	.765	148.0	.187	-.008	-.015	.688
30.0	.317	-.017	-.000	.683	90.0	.246	-.011	.000	.765	150.0	.191	-.008	-.015	.684
32.0	.296	-.016	.000	.688	92.0	.245	-.011	-.001	.765	152.0	.190	-.009	-.015	.679
34.0	.283	-.016	.000	.693	94.0	.244	-.011	-.003	.764	154.0	.196	-.008	-.013	.674
36.0	.272	-.015	-.000	.698	96.0	.239	-.011	-.004	.764	156.0	.202	-.008	-.013	.668
38.0	.260	-.014	-.002	.702	98.0	.230	-.011	-.005	.763	158.0	.206	-.009	-.013	.663
40.0	.248	-.013	-.004	.707	100.0	.218	-.010	-.006	.762	160.0	.211	-.009	-.014	.658
42.0	.246	-.011	-.004	.711	102.0	.201	-.009	-.007	.761	162.0	.217	-.009	-.014	.653
44.0	.256	-.011	-.006	.715	104.0	.187	-.008	-.009	.760	164.0	.229	-.009	-.014	.647
46.0	.271	-.011	-.007	.719	106.0	.175	-.008	-.010	.758	166.0	.238	-.009	-.015	.642
48.0	.231	-.011	-.007	.723	108.0	.155	-.003	-.010	.757	168.0	.245	-.010	-.015	.635
50.0	.232	-.010	-.005	.727	110.0	.153	-.003	-.014	.755	170.0	.252	-.010	-.014	.631
52.0	.275	-.010	-.003	.730	112.0	.157	-.003	-.013	.753	172.0	.251	-.010	-.014	.625
54.0	.253	-.010	-.003	.734	114.0	.153	-.003	-.012	.751	174.0	.271	-.011	-.014	.619
56.0	.255	-.010	-.003	.737	116.0	.148	-.007	-.012	.748	176.0	.279	-.011	-.012	.614
58.0	.256	-.010	-.003	.737	118.0	.148	-.007	-.012	.748	178.0	.279	-.011	-.012	.614
	.257	-.009	-.004	.740		.144	-.007	-.012	.746		.297	-.012	-.015	.608

FLT 92 RUN27

AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 92 RUN 27 TIME 45028.000

RN/M= 14.59 MILLION

ROTOR SPEED= 34.3221 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
180.0	.304	-.011	-.013	.602	240.0	.744	-.086	.022	.452	300.0	.724	-.082	.038	.462
182.0	.309	-.013	-.011	.597	242.0	.748	-.088	.024	.459	302.0	.672	-.073	.031	.464
184.0	.321	-.013	-.012	.591	244.0	.757	-.091	.025	.456	304.0	.611	-.065	.027	.468
186.0	.330	-.014	-.011	.585	246.0	.763	-.093	.025	.454	306.0	.580	-.059	.026	.471
188.0	.333	-.015	-.010	.580	248.0	.772	-.095	.025	.452	308.0	.562	-.055	.026	.474
190.0	.355	-.016	-.011	.574	250.0	.776	-.097	.026	.450	310.0	.564	-.051	.020	.478
192.0	.367	-.017	-.009	.569	252.0	.779	-.098	.026	.448	312.0	.561	-.051	.017	.481
194.0	.380	-.018	-.008	.563	254.0	.774	-.098	.027	.446	314.0	.578	-.050	.009	.485
196.0	.399	-.020	-.009	.558	256.0	.779	-.099	.027	.445	316.0	.582	-.051	.009	.489
198.0	.414	-.021	-.008	.552	258.0	.784	-.100	.027	.443	318.0	.583	-.052	.010	.493
200.0	.450	-.023	-.014	.547	260.0	.785	-.101	.028	.442	320.0	.567	-.053	.016	.498
202.0	.465	-.025	-.014	.542	262.0	.794	-.102	.027	.441	322.0	.571	-.054	.014	.502
204.0	.477	-.027	-.013	.536	264.0	.803	-.103	.025	.441	324.0	.581	-.055	.011	.507
206.0	.493	-.029	-.011	.531	266.0	.807	-.103	.025	.440	326.0	.591	-.056	.007	.511
208.0	.509	-.031	-.011	.526	268.0	.802	-.103	.027	.440	328.0	.591	-.056	.008	.516
210.0	.520	-.033	-.008	.521	270.0	.800	-.104	.028	.440	330.0	.587	-.055	.007	.521
212.0	.537	-.036	-.005	.516	272.0	.802	-.104	.029	.440	332.0	.584	-.054	.006	.526
214.0	.557	-.040	-.002	.512	274.0	.802	-.104	.029	.440	334.0	.578	-.052	.005	.531
216.0	.571	-.043	-.001	.507	276.0	.804	-.104	.029	.441	336.0	.565	-.052	.009	.536
218.0	.588	-.046	.000	.502	278.0	.811	-.105	.029	.441	338.0	.543	-.051	.016	.541
220.0	.607	-.051	.003	.498	280.0	.815	-.105	.029	.442	340.0	.542	-.051	.013	.547
222.0	.623	-.055	.006	.494	282.0	.817	-.103	.028	.443	342.0	.541	-.049	.012	.552
224.0	.640	-.060	.011	.490	284.0	.820	-.103	.030	.445	344.0	.543	-.048	.011	.557
226.0	.654	-.064	.012	.486	286.0	.821	-.103	.031	.446	346.0	.548	-.047	.011	.563
228.0	.669	-.067	.013	.482	288.0	.822	-.101	.031	.448	348.0	.570	-.047	.010	.568
230.0	.680	-.071	.015	.478	290.0	.834	-.099	.033	.450	350.0	.593	-.046	.010	.574
232.0	.694	-.075	.016	.474	292.0	.838	-.096	.032	.452	352.0	.591	-.046	.011	.579
234.0	.714	-.078	.016	.471	294.0	.851	-.094	.031	.454	354.0	.551	-.042	.012	.585
236.0	.731	-.081	.015	.468	296.0	.862	-.092	.033	.456	356.0	.495	-.038	.016	.591
238.0	.740	-.084	.017	.465	298.0	.811	-.088	.035	.459	358.0	.451	-.035	.015	.596

FLT 92 RUN27

AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/21.

FLT 92 RUN 39 TIME 45900.000

RN/M= 14.64 MILLION

ROTOR SPEED= 33.6833 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
0.0	.476	-.038	.011	.592	60.0	.182	-.009	-.002	.723	120.0	.026	-.005	-.025	.723
2.0	.466	-.037	.012	.597	62.0	.179	-.009	-.004	.726	122.0	.026	-.005	-.023	.720
4.0	.454	-.036	.011	.602	64.0	.175	-.009	-.004	.728	124.0	.033	-.006	-.024	.718
6.0	.439	-.035	.012	.608	66.0	.169	-.008	-.005	.730	126.0	.046	-.006	-.026	.715
8.0	.435	-.034	.010	.613	68.0	.166	-.007	-.007	.732	128.0	.051	-.006	-.025	.711
10.0	.417	-.032	.011	.618	70.0	.160	-.008	-.008	.734	130.0	.054	-.006	-.024	.708
12.0	.408	-.031	.010	.623	72.0	.153	-.007	-.008	.736	132.0	.059	-.006	-.023	.705
14.0	.393	-.030	.010	.628	74.0	.142	-.006	-.007	.738	134.0	.065	-.005	-.023	.701
16.0	.385	-.029	.010	.634	76.0	.135	-.006	-.007	.739	136.0	.069	-.005	-.023	.697
18.0	.369	-.028	.010	.639	78.0	.126	-.006	-.008	.740	138.0	.078	-.005	-.023	.693
20.0	.359	-.027	.009	.644	80.0	.120	-.006	-.010	.741	140.0	.089	-.005	-.025	.689
22.0	.349	-.025	.008	.649	82.0	.113	-.006	-.012	.742	142.0	.096	-.005	-.024	.685
24.0	.336	-.023	.008	.653	84.0	.104	-.005	-.012	.743	144.0	.101	-.005	-.022	.681
26.0	.324	-.022	.003	.658	86.0	.093	-.005	-.012	.743	146.0	.110	-.005	-.021	.677
28.0	.323	-.021	.005	.663	88.0	.087	-.004	-.013	.743	148.0	.123	-.005	-.021	.672
30.0	.316	-.020	.002	.668	90.0	.076	-.004	-.014	.743	150.0	.131	-.006	-.021	.668
32.0	.305	-.019	.001	.672	92.0	.071	-.004	-.014	.743	152.0	.145	-.006	-.021	.663
34.0	.291	-.018	.002	.677	94.0	.064	-.004	-.014	.743	154.0	.158	-.006	-.022	.658
36.0	.280	-.017	.002	.681	96.0	.061	-.004	-.017	.743	156.0	.167	-.006	-.021	.654
38.0	.272	-.015	.002	.685	98.0	.056	-.004	-.019	.742	158.0	.174	-.006	-.019	.649
40.0	.259	-.015	.003	.689	100.0	.048	-.004	-.019	.741	160.0	.181	-.006	-.017	.644
42.0	.257	-.014	.001	.693	102.0	.046	-.004	-.021	.740	162.0	.193	-.006	-.019	.639
44.0	.251	-.014	.002	.697	104.0	.046	-.004	-.023	.739	164.0	.194	-.006	-.016	.634
46.0	.236	-.013	.001	.701	106.0	.036	-.004	-.022	.738	166.0	.209	-.007	-.016	.629
48.0	.231	-.013	-.001	.704	108.0	.033	-.004	-.023	.736	168.0	.223	-.007	-.017	.623
50.0	.229	-.012	-.002	.708	110.0	.032	-.004	-.023	.734	170.0	.240	-.007	-.018	.618
52.0	.219	-.012	-.002	.711	112.0	.029	-.004	-.024	.732	172.0	.255	-.008	-.017	.613
54.0	.209	-.011	-.003	.714	114.0	.035	-.005	-.026	.730	174.0	.268	-.009	-.016	.608
56.0	.204	-.010	-.003	.717	116.0	.033	-.004	-.026	.728	176.0	.288	-.010	-.016	.602
58.0	.199	-.010	-.005	.720	118.0	.028	-.004	-.025	.726	178.0	.311	-.011	-.018	.597

FLT 92 RUN39

## AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/21.

FLT 92 RUN 39 TIME 45900.000

RN/M= 14.64 MILLION

ROTOR SPEED= 33.6833 RAD/SEC

AZIMUTH	CN	CC	CM	M
180.0	.325	-.011	-.016	.592
182.0	.334	-.013	-.014	.587
184.0	.344	-.014	-.010	.581
186.0	.361	-.016	-.009	.576
188.0	.379	-.017	-.009	.571
190.0	.398	-.019	-.010	.566
192.0	.413	-.021	-.008	.560
194.0	.423	-.023	-.005	.555
196.0	.449	-.026	-.007	.550
198.0	.468	-.028	-.007	.545
200.0	.479	-.030	-.004	.540
202.0	.518	-.033	-.010	.535
204.0	.529	-.035	-.007	.530
206.0	.543	-.038	-.006	.525
208.0	.555	-.041	-.004	.521
210.0	.555	-.043	.002	.516
212.0	.568	-.046	.002	.512
214.0	.576	-.048	.005	.507
216.0	.591	-.051	.007	.503
218.0	.616	-.054	.004	.499
220.0	.622	-.057	.008	.494
222.0	.637	-.060	.008	.490
224.0	.643	-.061	.009	.487
226.0	.654	-.063	.009	.483
228.0	.661	-.065	.010	.479
230.0	.667	-.067	.012	.476
232.0	.668	-.069	.014	.472
234.0	.675	-.070	.013	.469
236.0	.684	-.071	.012	.466
238.0	.683	-.072	.013	.463

AZIMUTH	CN	CC	CM	M
240.0	.688	-.073	.014	.461
242.0	.694	-.074	.013	.458
244.0	.696	-.074	.013	.456
246.0	.699	-.074	.013	.453
248.0	.701	-.074	.012	.451
250.0	.702	-.075	.012	.449
252.0	.703	-.075	.013	.448
254.0	.700	-.074	.012	.446
256.0	.699	-.073	.012	.445
258.0	.704	-.073	.011	.443
260.0	.702	-.073	.011	.442
262.0	.698	-.072	.010	.442
264.0	.697	-.072	.011	.441
266.0	.692	-.070	.010	.441
268.0	.686	-.069	.010	.440
270.0	.684	-.068	.010	.440
272.0	.670	-.067	.011	.440
274.0	.655	-.066	.013	.441
276.0	.654	-.064	.014	.441
278.0	.650	-.063	.011	.442
280.0	.633	-.062	.015	.442
282.0	.634	-.061	.011	.443
284.0	.628	-.060	.012	.445
286.0	.620	-.058	.011	.446
288.0	.629	-.056	.006	.448
290.0	.621	-.054	.004	.449
292.0	.610	-.053	.003	.451
294.0	.606	-.051	.002	.453
296.0	.598	-.049	.001	.455
298.0	.553	-.047	.010	.458

AZIMUTH	CN	CC	CM	M
300.0	.546	-.045	.009	.460
302.0	.540	-.044	.009	.463
304.0	.537	-.043	.007	.466
306.0	.562	-.042	-.001	.469
308.0	.528	-.041	.007	.472
310.0	.526	-.039	.005	.476
312.0	.525	-.039	.005	.479
314.0	.520	-.038	.006	.483
316.0	.521	-.039	.006	.486
318.0	.520	-.037	.005	.490
320.0	.527	-.039	.002	.494
322.0	.531	-.040	.001	.498
324.0	.533	-.040	.002	.503
326.0	.533	-.041	.002	.507
328.0	.538	-.043	.003	.511
330.0	.538	-.044	.004	.516
332.0	.546	-.045	.004	.520
334.0	.548	-.046	.004	.525
336.0	.539	-.046	.008	.530
338.0	.530	-.047	.011	.535
340.0	.531	-.047	.012	.540
342.0	.534	-.047	.010	.545
344.0	.534	-.046	.009	.550
346.0	.530	-.045	.011	.555
348.0	.527	-.045	.011	.560
350.0	.516	-.044	.012	.565
352.0	.512	-.043	.012	.571
354.0	.499	-.042	.014	.576
356.0	.489	-.040	.013	.581
358.0	.481	-.039	.013	.586

FLT 92 RUN39

## AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/19.

FLT 92 RUN 40 TIME 45992.200

RN/M= 14.68 MILLION

ROTOR SPEED= 33.7272 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
0.0	.224	-.006	-.005	.593	60.0	.114	-.005	-.011	.735	120.0	-.048	-.005	-.031	.735
2.0	.211	-.006	-.009	.599	62.0	.122	-.005	-.014	.738	122.0	-.045	-.006	-.032	.732
4.0	.190	-.004	-.011	.605	64.0	.119	-.005	-.013	.740	124.0	-.046	-.006	-.031	.729
6.0	.156	-.002	-.011	.610	66.0	.114	-.005	-.012	.743	126.0	-.042	-.007	-.032	.726
8.0	.130	-.001	-.012	.616	68.0	.111	-.005	-.012	.745	128.0	-.031	-.007	-.035	.722
10.0	.116	-.001	-.014	.622	70.0	.107	-.005	-.013	.747	130.0	-.031	-.008	-.034	.719
12.0	.107	-.000	-.015	.627	72.0	.106	-.005	-.014	.749	132.0	-.039	-.008	-.031	.715
14.0	.102	-.001	-.017	.633	74.0	.097	-.004	-.014	.751	134.0	-.038	-.008	-.032	.711
16.0	.090	-.001	-.017	.638	76.0	.087	-.004	-.014	.752	136.0	-.034	-.008	-.032	.707
18.0	.080	-.001	-.018	.644	78.0	.078	-.004	-.014	.754	138.0	-.031	-.008	-.032	.703
20.0	.072	-.001	-.017	.649	80.0	.069	-.004	-.015	.755	140.0	-.029	-.008	-.032	.699
22.0	.072	-.001	-.017	.655	82.0	.063	-.004	-.017	.756	142.0	-.031	-.003	-.031	.694
24.0	.076	-.001	-.018	.660	84.0	.057	-.004	-.019	.756	144.0	-.027	-.008	-.032	.690
26.0	.081	-.001	-.018	.665	86.0	.050	-.003	-.020	.757	146.0	-.024	-.008	-.032	.685
28.0	.078	-.001	-.017	.670	88.0	.038	-.004	-.020	.757	148.0	-.024	-.008	-.030	.680
30.0	.077	-.001	-.014	.675	90.0	.028	-.003	-.021	.757	150.0	-.019	-.008	-.030	.675
32.0	.077	-.002	-.012	.680	92.0	.021	-.003	-.022	.757	152.0	-.013	-.008	-.030	.670
34.0	.061	-.003	-.014	.685	94.0	.015	-.003	-.024	.757	154.0	-.012	-.007	-.029	.665
36.0	.065	-.003	-.015	.689	96.0	.008	-.004	-.025	.756	156.0	-.001	-.007	-.029	.660
38.0	.083	-.003	-.015	.694	98.0	.002	-.004	-.026	.756	158.0	.006	-.006	-.030	.655
40.0	.084	-.002	-.015	.698	100.0	-.007	-.004	-.027	.755	160.0	.015	-.006	-.030	.649
42.0	.087	-.002	-.016	.703	102.0	-.015	-.003	-.028	.754	162.0	.015	-.006	-.029	.644
44.0	.089	-.003	-.016	.707	104.0	-.026	-.004	-.027	.752	164.0	.023	-.005	-.028	.638
46.0	.093	-.003	-.016	.711	106.0	-.032	-.004	-.028	.751	166.0	.036	-.005	-.030	.633
48.0	.097	-.003	-.016	.715	108.0	-.036	-.004	-.029	.749	168.0	.042	-.004	-.029	.627
50.0	.104	-.003	-.016	.719	110.0	-.041	-.004	-.028	.747	170.0	.046	-.004	-.029	.622
52.0	.111	-.004	-.016	.722	112.0	-.046	-.004	-.029	.745	172.0	.053	-.003	-.027	.616
54.0	.110	-.004	-.015	.726	114.0	-.049	-.004	-.029	.743	174.0	.066	-.004	-.025	.610
56.0	.107	-.004	-.013	.729	116.0	-.048	-.005	-.030	.741	176.0	.077	-.004	-.026	.605
58.0	.111	-.004	-.012	.732	118.0	-.046	-.005	-.031	.738	178.0	.087	-.004	-.026	.599

FLT 92 RUN40



## AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/19.

FLT 92 RUN 40 TIME 45992.200

RN/M= 14.68 MILLION

ROTOR SPEED= 33.7272 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
180.0	.105	-.004	-.028	.593	240.0	.510	-.032	-.004	.451	300.0	.453	-.029	.004	.451
182.0	.126	-.003	-.028	.587	242.0	.515	-.032	-.003	.448	302.0	.433	-.027	.003	.454
184.0	.141	-.003	-.027	.582	244.0	.509	-.034	-.002	.446	304.0	.413	-.024	.002	.457
186.0	.154	-.002	-.025	.576	246.0	.517	-.034	-.004	.443	306.0	.382	-.020	-.001	.460
188.0	.172	-.003	-.026	.570	248.0	.527	-.034	-.005	.441	308.0	.343	-.017	.000	.464
190.0	.194	-.004	-.026	.565	250.0	.531	-.034	-.006	.439	310.0	.321	-.015	.001	.467
192.0	.208	-.004	-.025	.559	252.0	.529	-.035	-.005	.437	312.0	.313	-.014	-.001	.471
194.0	.214	-.004	-.022	.553	254.0	.532	-.036	-.005	.435	314.0	.309	-.013	-.007	.475
196.0	.229	-.004	-.022	.548	256.0	.533	-.035	-.005	.434	316.0	.308	-.012	-.010	.479
198.0	.242	-.005	-.019	.542	258.0	.534	-.036	-.005	.433	318.0	.294	-.011	-.008	.483
200.0	.260	-.006	-.018	.537	260.0	.534	-.036	-.005	.432	320.0	.285	-.011	-.009	.488
202.0	.276	-.007	-.017	.532	262.0	.537	-.036	-.006	.431	322.0	.276	-.009	-.009	.492
204.0	.300	-.007	-.017	.526	264.0	.536	-.036	-.006	.430	324.0	.282	-.009	-.009	.497
206.0	.319	-.009	-.017	.521	266.0	.535	-.035	-.006	.429	326.0	.279	-.008	-.010	.501
208.0	.320	-.010	-.013	.516	268.0	.534	-.036	-.005	.429	328.0	.276	-.008	-.011	.506
210.0	.336	-.011	-.011	.511	270.0	.536	-.035	-.006	.429	330.0	.267	-.007	-.011	.511
212.0	.355	-.013	-.012	.506	272.0	.539	-.036	-.006	.429	332.0	.252	-.007	-.011	.516
214.0	.368	-.015	-.011	.501	274.0	.538	-.036	-.006	.429	334.0	.246	-.008	-.009	.521
216.0	.379	-.016	-.010	.497	276.0	.520	-.036	-.000	.430	336.0	.243	-.007	-.010	.526
218.0	.389	-.017	-.008	.492	278.0	.511	-.036	.002	.431	338.0	.239	-.007	-.010	.531
220.0	.407	-.019	-.006	.488	280.0	.538	-.036	-.006	.432	340.0	.239	-.007	-.010	.537
222.0	.439	-.021	-.013	.483	282.0	.533	-.036	-.006	.433	342.0	.240	-.008	-.010	.542
224.0	.451	-.022	-.012	.479	284.0	.512	-.035	.000	.434	344.0	.241	-.009	-.009	.548
226.0	.463	-.023	-.011	.475	286.0	.519	-.036	-.000	.435	346.0	.254	-.009	-.009	.553
228.0	.468	-.025	-.009	.471	288.0	.507	-.035	.002	.437	348.0	.269	-.009	-.008	.559
230.0	.477	-.026	-.008	.467	290.0	.499	-.035	.006	.439	350.0	.277	-.010	-.006	.564
232.0	.490	-.028	-.008	.464	292.0	.505	-.036	.005	.441	352.0	.266	-.010	-.005	.570
234.0	.497	-.029	-.006	.460	294.0	.500	-.035	.005	.443	354.0	.250	-.009	-.007	.576
236.0	.502	-.031	-.005	.457	296.0	.493	-.033	.002	.446	356.0	.231	-.007	-.010	.581
238.0	.507	-.031	-.004	.454	298.0	.485	-.032	.001	.448	358.0	.206	-.006	-.010	.587

FLT 92 RUN40

## AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 93 RUN 10 TIME 54774.900

RN/M= 14.59 MILLION

ROTOR SPEED= 33.4286 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
0.0	.377	-.019	-.002	.587	60.0	.172	-.004	-.007	.771	120.0	-.072	-.005	-.036	.771
2.0	.364	-.018	-.002	.594	62.0	.178	-.004	-.007	.775	122.0	-.075	-.005	-.036	.767
4.0	.351	-.017	-.004	.601	64.0	.188	-.005	-.008	.778	124.0	-.072	-.006	-.037	.763
6.0	.323	-.015	-.001	.609	66.0	.193	-.005	-.007	.781	126.0	-.075	-.007	-.037	.759
8.0	.302	-.014	.000	.616	68.0	.196	-.005	-.006	.784	128.0	-.074	-.007	-.038	.755
10.0	.286	-.012	-.002	.624	70.0	.198	-.005	-.006	.787	130.0	-.081	-.008	-.039	.750
12.0	.275	-.011	-.003	.631	72.0	.191	-.005	-.004	.789	132.0	-.081	-.009	-.041	.745
14.0	.263	-.010	-.003	.638	74.0	.182	-.005	-.003	.791	134.0	-.083	-.010	-.043	.740
16.0	.254	-.009	-.004	.645	76.0	.173	-.005	-.003	.793	136.0	-.085	-.011	-.043	.735
18.0	.252	-.008	-.007	.652	78.0	.160	-.005	-.004	.795	138.0	-.079	-.011	-.044	.729
20.0	.238	-.007	-.006	.659	80.0	.147	-.005	-.005	.796	140.0	-.068	-.010	-.043	.724
22.0	.231	-.007	-.006	.666	82.0	.138	-.005	-.007	.798	142.0	-.059	-.010	-.042	.718
24.0	.226	-.007	-.007	.673	84.0	.125	-.004	-.008	.798	144.0	-.049	-.010	-.042	.712
26.0	.217	-.007	-.007	.680	86.0	.114	-.004	-.009	.799	146.0	-.041	-.011	-.042	.706
28.0	.210	-.006	-.007	.687	88.0	.102	-.004	-.010	.800	148.0	-.034	-.011	-.040	.700
30.0	.202	-.006	-.007	.693	90.0	.090	-.004	-.014	.800	150.0	-.034	-.010	-.037	.693
32.0	.202	-.006	-.006	.699	92.0	.074	-.003	-.016	.800	152.0	-.024	-.010	-.035	.687
34.0	.203	-.006	-.007	.706	94.0	.057	-.003	-.018	.799	154.0	-.010	-.010	-.037	.680
36.0	.202	-.007	-.008	.712	96.0	.037	-.002	-.018	.798	156.0	.005	-.011	-.035	.673
38.0	.199	-.006	-.008	.718	98.0	.023	-.002	-.019	.798	158.0	.012	-.010	-.033	.666
40.0	.198	-.006	-.006	.723	100.0	.010	-.002	-.021	.796	160.0	.021	-.009	-.031	.660
42.0	.195	-.006	-.007	.729	102.0	-.005	-.002	-.023	.795	162.0	.032	-.008	-.031	.652
44.0	.195	-.006	-.008	.735	104.0	-.020	-.002	-.025	.793	164.0	.044	-.007	-.031	.645
46.0	.196	-.006	-.009	.740	106.0	-.035	-.003	-.026	.791	166.0	.064	-.006	-.029	.638
48.0	.186	-.006	-.006	.745	108.0	-.048	-.003	-.027	.789	168.0	.084	-.006	-.027	.631
50.0	.182	-.006	-.007	.750	110.0	-.056	-.003	-.030	.787	170.0	.102	-.006	-.027	.624
52.0	.189	-.005	-.009	.754	112.0	-.062	-.003	-.031	.784	172.0	.129	-.006	-.029	.616
54.0	.181	-.005	-.009	.759	114.0	-.063	-.004	-.033	.781	174.0	.143	-.006	-.027	.609
56.0	.178	-.004	-.009	.763	116.0	-.067	-.004	-.035	.778	176.0	.163	-.006	-.027	.602
58.0	.175	-.004	-.008	.767	118.0	-.071	-.004	-.035	.775	178.0	.195	-.006	-.027	.594

FLT 93 RUN10

AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/19.

FLT 93 RUN 10 TIME 54774.900

RN/M= 14.59 MILLION

ROTOR SPEED= 33.4286 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
180.0	.220	-.007	-.027	.527	240.0	.890	-.131	.038	.402	300.0	.697	-.076	.030	.402
182.0	.249	-.007	-.028	.579	242.0	.888	-.133	.040	.398	302.0	.668	-.073	.034	.406
184.0	.275	-.007	-.029	.572	244.0	.893	-.135	.041	.395	304.0	.652	-.070	.033	.410
186.0	.297	-.008	-.028	.564	246.0	.881	-.134	.041	.392	306.0	.642	-.068	.030	.414
188.0	.323	-.009	-.025	.557	248.0	.880	-.134	.040	.389	308.0	.633	-.064	.027	.418
190.0	.347	-.010	-.021	.550	250.0	.885	-.133	.039	.386	310.0	.625	-.060	.023	.423
192.0	.374	-.012	-.020	.542	252.0	.876	-.132	.042	.384	312.0	.611	-.058	.022	.428
194.0	.397	-.015	-.017	.535	254.0	.870	-.132	.043	.382	314.0	.597	-.055	.022	.433
196.0	.430	-.019	-.015	.528	256.0	.872	-.131	.040	.380	316.0	.575	-.052	.023	.438
198.0	.465	-.021	-.016	.521	258.0	.860	-.127	.040	.376	318.0	.559	-.049	.023	.444
200.0	.501	-.025	-.015	.514	260.0	.866	-.127	.038	.377	320.0	.548	-.047	.022	.449
202.0	.526	-.029	-.011	.507	262.0	.877	-.125	.035	.375	322.0	.535	-.043	.017	.455
204.0	.574	-.034	-.013	.500	264.0	.867	-.123	.037	.375	324.0	.518	-.041	.015	.461
206.0	.595	-.039	-.008	.493	266.0	.844	-.121	.041	.374	326.0	.506	-.039	.017	.467
208.0	.625	-.044	-.006	.487	268.0	.832	-.119	.039	.374	328.0	.499	-.038	.016	.473
210.0	.645	-.051	-.001	.480	270.0	.820	-.116	.040	.373	330.0	.488	-.036	.013	.480
212.0	.678	-.057	.001	.474	272.0	.822	-.114	.039	.374	332.0	.480	-.035	.013	.486
214.0	.703	-.065	.003	.467	274.0	.818	-.110	.036	.374	334.0	.468	-.033	.015	.493
216.0	.730	-.072	.005	.461	276.0	.810	-.106	.033	.375	336.0	.463	-.032	.013	.500
218.0	.747	-.078	.011	.455	278.0	.804	-.104	.033	.375	338.0	.453	-.031	.013	.506
220.0	.770	-.084	.014	.450	280.0	.796	-.101	.032	.377	340.0	.442	-.030	.013	.513
222.0	.789	-.091	.018	.444	282.0	.788	-.098	.031	.378	342.0	.438	-.028	.011	.520
224.0	.806	-.097	.020	.439	284.0	.778	-.094	.030	.380	344.0	.438	-.028	.009	.528
226.0	.827	-.103	.021	.433	286.0	.765	-.093	.030	.382	346.0	.434	-.028	.009	.535
228.0	.837	-.107	.023	.428	288.0	.756	-.091	.030	.384	348.0	.430	-.027	.007	.542
230.0	.842	-.112	.028	.423	290.0	.747	-.088	.030	.386	350.0	.431	-.027	.004	.549
232.0	.853	-.117	.031	.419	292.0	.737	-.086	.030	.389	352.0	.426	-.027	.005	.557
234.0	.862	-.120	.033	.414	294.0	.731	-.084	.029	.392	354.0	.423	-.027	.004	.564
236.0	.873	-.124	.036	.410	296.0	.724	-.082	.029	.395	356.0	.422	-.026	.003	.571
238.0	.884	-.127	.036	.406	298.0	.716	-.080	.029	.398	358.0	.413	-.025	.003	.579

FLT 93 RUN10

AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 94 RUN 3 TIME 50625.200

RN/M= 15.00 MILLION

ROTOR SPEED= 33.7214 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
0.0	.394	-.030	.003	.598	60.0	.155	-.007	-.016	.694	120.0	.153	-.007	-.013	.694
2.0	.380	-.028	.003	.602	62.0	.155	-.008	-.013	.696	122.0	.150	-.006	-.014	.692
4.0	.354	-.026	.003	.605	64.0	.154	-.008	-.011	.698	124.0	.147	-.007	-.013	.690
6.0	.343	-.024	.003	.609	66.0	.154	-.008	-.011	.699	126.0	.142	-.006	-.014	.688
8.0	.327	-.022	.005	.613	68.0	.148	-.008	-.011	.701	128.0	.147	-.005	-.017	.685
10.0	.315	-.020	.003	.617	70.0	.146	-.006	-.014	.702	130.0	.147	-.005	-.016	.683
12.0	.310	-.018	.001	.621	72.0	.149	-.006	-.016	.704	132.0	.148	-.005	-.017	.680
14.0	.303	-.018	-.002	.625	74.0	.153	-.006	-.017	.705	134.0	.149	-.005	-.018	.678
16.0	.289	-.016	-.002	.628	76.0	.158	-.006	-.016	.706	136.0	.149	-.005	-.018	.675
18.0	.278	-.014	-.003	.632	78.0	.168	-.005	-.015	.707	138.0	.149	-.006	-.016	.672
20.0	.268	-.014	-.003	.636	80.0	.182	-.006	-.013	.707	140.0	.154	-.006	-.017	.669
22.0	.259	-.013	-.004	.639	82.0	.192	-.007	-.011	.708	142.0	.154	-.005	-.019	.666
24.0	.248	-.012	-.003	.643	84.0	.200	-.008	-.010	.708	144.0	.156	-.005	-.019	.663
26.0	.239	-.011	-.005	.646	86.0	.201	-.009	-.009	.709	146.0	.163	-.005	-.018	.660
28.0	.227	-.011	-.005	.650	88.0	.198	-.009	-.005	.709	148.0	.167	-.005	-.017	.657
30.0	.227	-.011	-.009	.653	90.0	.196	-.009	-.006	.709	150.0	.164	-.006	-.014	.653
32.0	.217	-.010	-.009	.657	92.0	.194	-.009	-.007	.709	152.0	.165	-.006	-.013	.650
34.0	.204	-.010	-.008	.660	94.0	.190	-.009	-.007	.709	154.0	.170	-.006	-.014	.647
36.0	.194	-.010	-.007	.663	96.0	.188	-.009	-.008	.708	156.0	.177	-.006	-.017	.643
38.0	.180	-.009	-.006	.666	98.0	.182	-.009	-.009	.708	158.0	.183	-.007	-.019	.639
40.0	.172	-.008	-.005	.669	100.0	.177	-.008	-.008	.707	160.0	.177	-.007	-.015	.636
42.0	.172	-.008	-.008	.672	102.0	.172	-.008	-.009	.707	162.0	.181	-.006	-.014	.632
44.0	.169	-.008	-.010	.675	104.0	.170	-.008	-.009	.706	164.0	.182	-.006	-.014	.628
46.0	.166	-.008	-.010	.678	106.0	.167	-.007	-.011	.705	166.0	.195	-.006	-.018	.625
48.0	.159	-.007	-.011	.680	108.0	.167	-.007	-.012	.704	168.0	.198	-.006	-.016	.621
50.0	.154	-.007	-.011	.683	110.0	.164	-.006	-.012	.702	170.0	.197	-.007	-.013	.617
52.0	.143	-.007	-.014	.685	112.0	.157	-.007	-.010	.701	172.0	.204	-.007	-.014	.613
54.0	.133	-.007	-.014	.688	114.0	.151	-.007	-.010	.699	174.0	.207	-.007	-.013	.609
56.0	.135	-.007	-.016	.690	116.0	.151	-.007	-.011	.698	176.0	.221	-.007	-.016	.605
58.0	.140	-.007	-.016	.692	118.0	.160	-.006	-.015	.696	178.0	.229	-.008	-.017	.602

FLT 94 RUN3

AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/21.

FLT 94 RUN 3. TIME 50625.200

RN/M= 15.00 MILLION

ROTOR SPEED= 33.7214 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
180.0	.225	-.008	-.012	.598	240.0	.498	-.036	.003	.501	300.0	.435	-.027	.002	.501
182.0	.238	-.009	-.014	.594	242.0	.504	-.038	.005	.499	302.0	.436	-.027	.002	.503
184.0	.252	-.010	-.016	.590	244.0	.523	-.039	.004	.498	304.0	.433	-.028	.006	.505
186.0	.268	-.009	-.020	.586	246.0	.538	-.041	.005	.496	306.0	.436	-.029	.006	.507
188.0	.274	-.010	-.019	.582	248.0	.550	-.044	.006	.494	308.0	.437	-.029	.005	.510
190.0	.276	-.010	-.017	.578	250.0	.556	-.046	.008	.493	310.0	.435	-.029	.005	.512
192.0	.273	-.010	-.014	.575	252.0	.563	-.050	.009	.492	312.0	.432	-.029	.007	.515
194.0	.291	-.012	-.015	.571	254.0	.578	-.054	.011	.491	314.0	.427	-.029	.007	.517
196.0	.306	-.013	-.015	.567	256.0	.600	-.057	.010	.490	316.0	.431	-.029	.008	.520
198.0	.313	-.013	-.015	.563	258.0	.619	-.059	.010	.489	318.0	.433	-.029	.008	.523
200.0	.319	-.014	-.015	.560	260.0	.626	-.062	.014	.488	320.0	.444	-.030	.006	.526
202.0	.323	-.015	-.012	.556	262.0	.635	-.065	.015	.487	322.0	.446	-.030	.006	.529
204.0	.327	-.015	-.009	.552	264.0	.638	-.067	.019	.487	324.0	.457	-.032	.004	.532
206.0	.344	-.016	-.012	.549	266.0	.655	-.070	.018	.487	326.0	.455	-.033	.008	.535
208.0	.353	-.016	-.009	.545	268.0	.671	-.072	.016	.486	328.0	.464	-.034	.007	.539
210.0	.361	-.017	-.009	.542	270.0	.669	-.074	.020	.486	330.0	.469	-.036	.007	.542
212.0	.371	-.018	-.010	.539	272.0	.669	-.075	.021	.486	332.0	.466	-.037	.011	.545
214.0	.378	-.019	-.010	.535	274.0	.660	-.074	.020	.487	334.0	.482	-.039	.008	.549
216.0	.383	-.019	-.007	.532	276.0	.634	-.070	.022	.487	336.0	.485	-.040	.009	.552
218.0	.398	-.021	-.009	.529	278.0	.594	-.064	.017	.487	338.0	.486	-.041	.009	.556
220.0	.412	-.023	-.009	.526	280.0	.547	-.054	.015	.488	340.0	.489	-.041	.009	.559
222.0	.405	-.023	-.002	.523	282.0	.497	-.048	.012	.489	342.0	.486	-.041	.009	.563
224.0	.413	-.024	-.002	.520	284.0	.461	-.040	.009	.490	344.0	.479	-.040	.009	.567
226.0	.425	-.025	-.002	.518	286.0	.444	-.034	.005	.491	346.0	.473	-.039	.007	.571
228.0	.438	-.027	-.001	.515	288.0	.429	-.030	.003	.492	348.0	.462	-.038	.009	.574
230.0	.450	-.029	-.002	.512	290.0	.421	-.026	.000	.493	350.0	.455	-.037	.003	.578
232.0	.459	-.029	-.001	.510	292.0	.420	-.026	.003	.494	352.0	.452	-.037	.005	.582
234.0	.474	-.032	-.002	.508	294.0	.425	-.026	.003	.496	354.0	.432	-.036	.008	.586
236.0	.479	-.033	.001	.505	296.0	.431	-.026	.001	.497	356.0	.422	-.034	.008	.590
238.0	.487	-.034	.003	.503	298.0	.436	-.026	-.000	.499	358.0	.408	-.032	.008	.594

FLT 94 RUN3

## AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT 94 RUN 7 TIME 51109.200

RN/M= 15.00 MILLION

ROTOR SPEED= 33.8469 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
0.0	.396	-.026	-.001	.596	60.0	.183	-.008	-.007	.738	120.0	.012	-.004	-.027	.738
2.0	.376	-.025	-.001	.602	62.0	.181	-.008	-.008	.741	122.0	.005	-.004	-.027	.735
4.0	.355	-.023	-.002	.608	64.0	.181	-.008	-.009	.744	124.0	.004	-.004	-.028	.732
6.0	.357	-.021	-.001	.613	66.0	.182	-.007	-.009	.746	126.0	.007	-.005	-.030	.729
8.0	.346	-.020	-.002	.619	68.0	.186	-.007	-.009	.748	128.0	.010	-.005	-.031	.725
10.0	.323	-.019	-.003	.625	70.0	.188	-.007	-.008	.750	130.0	.012	-.006	-.032	.722
12.0	.315	-.017	-.003	.630	72.0	.193	-.007	-.007	.752	132.0	.016	-.006	-.031	.718
14.0	.305	-.016	-.004	.636	74.0	.192	-.007	-.007	.754	134.0	.019	-.007	-.031	.714
16.0	.296	-.014	-.003	.641	76.0	.189	-.007	-.006	.755	136.0	.023	-.007	-.031	.710
18.0	.287	-.014	-.004	.647	78.0	.187	-.007	-.007	.757	138.0	.028	-.007	-.031	.706
20.0	.276	-.013	-.003	.652	80.0	.173	-.007	-.006	.758	140.0	.036	-.007	-.031	.702
22.0	.272	-.013	-.004	.658	82.0	.159	-.006	-.005	.759	142.0	.038	-.007	-.030	.697
24.0	.261	-.012	-.004	.663	84.0	.150	-.006	-.005	.759	144.0	.045	-.007	-.030	.693
26.0	.257	-.012	-.004	.668	86.0	.142	-.006	-.006	.760	146.0	.051	-.007	-.030	.688
28.0	.248	-.011	-.005	.673	88.0	.133	-.006	-.006	.760	148.0	.054	-.007	-.029	.683
30.0	.245	-.011	-.006	.678	90.0	.126	-.006	-.009	.760	150.0	.055	-.006	-.027	.678
32.0	.237	-.010	-.005	.683	92.0	.122	-.006	-.012	.760	152.0	.060	-.006	-.025	.673
34.0	.223	-.010	-.004	.688	94.0	.114	-.005	-.013	.760	154.0	.073	-.006	-.027	.668
36.0	.216	-.009	-.005	.693	96.0	.105	-.005	-.014	.759	156.0	.081	-.006	-.026	.663
38.0	.211	-.009	-.004	.697	98.0	.093	-.005	-.016	.759	158.0	.092	-.006	-.026	.658
40.0	.212	-.009	-.007	.702	100.0	.079	-.004	-.016	.758	160.0	.103	-.006	-.026	.652
42.0	.211	-.009	-.007	.706	102.0	.066	-.004	-.015	.757	162.0	.116	-.006	-.027	.647
44.0	.210	-.009	-.008	.710	104.0	.054	-.004	-.016	.755	164.0	.125	-.006	-.026	.642
46.0	.209	-.009	-.009	.714	106.0	.049	-.004	-.019	.754	166.0	.135	-.006	-.025	.636
48.0	.205	-.008	-.009	.718	108.0	.044	-.004	-.021	.752	168.0	.147	-.006	-.025	.630
50.0	.205	-.008	-.010	.722	110.0	.041	-.004	-.024	.750	170.0	.160	-.006	-.026	.625
52.0	.202	-.008	-.009	.725	112.0	.032	-.004	-.025	.748	172.0	.173	-.006	-.026	.619
54.0	.197	-.008	-.009	.729	114.0	.027	-.004	-.026	.746	174.0	.190	-.006	-.025	.614
56.0	.191	-.008	-.007	.732	116.0	.023	-.004	-.027	.744	176.0	.200	-.006	-.023	.608
58.0	.186	-.008	-.007	.735	118.0	.019	-.004	-.027	.741	178.0	.207	-.006	-.022	.602

FLT 94 RUN7

## AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT 94 RUN 7 TIME 51109.200

RN/M= 15.00 MILLION

ROTOR SPEED= 33.6469 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
180.0	.221	-.007	-.021	.596	240.0	.695	-.078	.019	.454	300.0	.623	-.067	.023	.454
182.0	.237	-.006	-.023	.591	242.0	.698	-.079	.024	.452	302.0	.605	-.063	.020	.457
184.0	.261	-.007	-.026	.585	244.0	.697	-.082	.029	.449	304.0	.576	-.058	.023	.460
186.0	.283	-.009	-.027	.579	246.0	.700	-.083	.030	.447	306.0	.545	-.052	.021	.464
188.0	.289	-.009	-.024	.574	248.0	.702	-.084	.030	.444	308.0	.527	-.048	.019	.467
190.0	.301	-.009	-.023	.568	250.0	.713	-.085	.028	.442	310.0	.515	-.044	.017	.471
192.0	.328	-.010	-.022	.562	252.0	.711	-.086	.030	.441	312.0	.499	-.040	.012	.474
194.0	.358	-.011	-.022	.557	254.0	.712	-.087	.030	.439	314.0	.485	-.035	.008	.478
196.0	.371	-.014	-.021	.551	256.0	.713	-.087	.030	.437	316.0	.488	-.034	.006	.482
198.0	.377	-.016	-.017	.546	258.0	.707	-.087	.031	.436	318.0	.482	-.034	.003	.487
200.0	.386	-.018	-.012	.540	260.0	.711	-.088	.028	.435	320.0	.473	-.033	.002	.491
202.0	.412	-.020	-.012	.535	262.0	.713	-.088	.030	.434	322.0	.461	-.033	.007	.495
204.0	.429	-.023	-.011	.530	264.0	.710	-.088	.031	.433	324.0	.435	-.031	.015	.500
206.0	.444	-.024	-.009	.525	266.0	.716	-.088	.031	.433	326.0	.431	-.030	.015	.505
208.0	.467	-.026	-.008	.519	268.0	.720	-.088	.030	.433	328.0	.429	-.029	.013	.509
210.0	.488	-.030	-.008	.514	270.0	.713	-.087	.030	.432	330.0	.434	-.028	.009	.514
212.0	.496	-.032	-.004	.510	272.0	.712	-.087	.030	.433	332.0	.429	-.027	.010	.519
214.0	.519	-.036	-.003	.505	274.0	.711	-.087	.030	.433	334.0	.433	-.028	.005	.524
216.0	.543	-.038	-.003	.500	276.0	.711	-.086	.030	.433	336.0	.434	-.028	.005	.530
218.0	.563	-.041	-.002	.496	278.0	.713	-.085	.026	.434	338.0	.432	-.026	.006	.535
220.0	.583	-.044	.000	.491	280.0	.714	-.085	.024	.435	340.0	.428	-.026	.008	.540
222.0	.591	-.048	.003	.487	282.0	.708	-.085	.025	.436	342.0	.428	-.026	.008	.546
224.0	.607	-.052	.004	.483	284.0	.708	-.084	.024	.437	344.0	.432	-.026	.007	.551
226.0	.619	-.056	.006	.479	286.0	.700	-.083	.025	.439	346.0	.427	-.028	.009	.556
228.0	.631	-.060	.009	.475	288.0	.691	-.082	.026	.440	348.0	.419	-.028	.009	.562
230.0	.645	-.063	.011	.471	290.0	.681	-.080	.025	.442	350.0	.414	-.028	.009	.568
232.0	.658	-.067	.013	.467	292.0	.672	-.078	.024	.444	352.0	.420	-.027	.003	.573
234.0	.669	-.070	.013	.464	294.0	.667	-.076	.024	.447	354.0	.407	-.028	.003	.579
236.0	.679	-.073	.014	.461	296.0	.667	-.074	.020	.449	356.0	.408	-.027	-.003	.585
238.0	.692	-.076	.016	.457	298.0	.644	-.070	.023	.452	358.0	.393	-.025	-.001	.590

FLT 94 RUN7

AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT 94 RUN 9 TIME 51321.200

RN/M= 14.99 MILLION

ROTOR SPEED= 33.5915 RAD/SEC

AZIMUTH	CN	CC	CM	M
0.0	.387	-.025	-.003	.595
2.0	.374	-.023	-.003	.602
4.0	.359	-.021	-.004	.609
6.0	.341	-.019	-.004	.616
8.0	.335	-.018	-.005	.622
10.0	.318	-.017	-.005	.629
12.0	.318	-.016	-.008	.636
14.0	.297	-.014	-.004	.642
16.0	.282	-.013	-.002	.649
18.0	.273	-.013	-.002	.656
20.0	.270	-.013	-.005	.662
22.0	.265	-.012	-.007	.668
24.0	.254	-.011	-.006	.675
26.0	.239	-.010	-.003	.681
28.0	.232	-.010	-.004	.687
30.0	.232	-.010	-.005	.693
32.0	.225	-.010	-.004	.699
34.0	.218	-.009	-.003	.705
36.0	.216	-.010	-.004	.710
38.0	.222	-.009	-.005	.716
40.0	.222	-.009	-.006	.721
42.0	.218	-.009	-.008	.726
44.0	.215	-.008	-.008	.731
46.0	.208	-.008	-.007	.736
48.0	.201	-.008	-.007	.740
50.0	.194	-.007	-.007	.745
52.0	.189	-.006	-.007	.749
54.0	.189	-.006	-.008	.753
56.0	.185	-.006	-.009	.757
58.0	.188	-.006	-.010	.761

AZIMUTH	CN	CC	CM	M
60.0	.193	-.006	-.009	.765
62.0	.202	-.006	-.009	.768
64.0	.208	-.006	-.007	.771
66.0	.213	-.006	-.005	.774
68.0	.213	-.007	-.004	.776
70.0	.210	-.005	-.003	.779
72.0	.206	-.007	-.003	.781
74.0	.193	-.007	-.003	.783
76.0	.178	-.005	-.004	.785
78.0	.164	-.006	-.005	.786
80.0	.152	-.005	-.006	.788
82.0	.142	-.005	-.008	.789
84.0	.126	-.005	-.009	.790
86.0	.108	-.004	-.011	.790
88.0	.091	-.003	-.012	.791
90.0	.075	-.003	-.015	.791
92.0	.065	-.002	-.017	.791
94.0	.047	-.002	-.016	.790
96.0	.039	-.002	-.018	.790
98.0	.026	-.002	-.019	.789
100.0	.013	-.002	-.020	.788
102.0	.004	-.002	-.022	.786
104.0	-.008	-.002	-.024	.785
106.0	-.022	-.003	-.025	.783
108.0	-.030	-.004	-.027	.781
110.0	-.038	-.004	-.029	.779
112.0	-.040	-.004	-.031	.777
114.0	-.041	-.005	-.033	.774
116.0	-.044	-.005	-.035	.771
118.0	-.047	-.006	-.036	.768

AZIMUTH	CN	CC	CM	M
120.0	-.048	-.006	-.037	.765
122.0	-.047	-.007	-.038	.761
124.0	-.047	-.008	-.038	.757
126.0	-.042	-.007	-.038	.753
128.0	-.037	-.006	-.037	.749
130.0	-.035	-.006	-.035	.745
132.0	-.026	-.006	-.035	.741
134.0	-.018	-.006	-.035	.736
136.0	-.013	-.007	-.036	.731
138.0	-.005	-.007	-.036	.726
140.0	.000	-.007	-.035	.721
142.0	.004	-.008	-.034	.716
144.0	.005	-.008	-.032	.710
146.0	.016	-.008	-.034	.705
148.0	.023	-.007	-.034	.699
150.0	.024	-.007	-.029	.693
152.0	.044	-.007	-.031	.697
154.0	.053	-.007	-.030	.681
156.0	.061	-.006	-.029	.675
158.0	.081	-.006	-.030	.669
160.0	.089	-.006	-.027	.662
162.0	.111	-.005	-.029	.656
164.0	.119	-.005	-.025	.649
166.0	.131	-.005	-.024	.643
168.0	.147	-.005	-.023	.636
170.0	.165	-.005	-.024	.629
172.0	.193	-.005	-.026	.623
174.0	.207	-.006	-.024	.616
176.0	.233	-.006	-.027	.609
178.0	.254	-.006	-.028	.602

FLT 94 RUN9



AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT. 94 RUN 9 TIME 51321.200

RN/M= 14.99 MILLION

ROTOR SPEED= 33.5915 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
180.0	.256	-.007	-.026	.595	240.0	.830	-.113	.026	.426	300.0	.722	-.087	.019	.476
182.0	.289	-.007	-.025	.588	242.0	.826	-.115	.025	.423	302.0	.713	-.085	.020	.429
184.0	.308	-.009	-.022	.582	244.0	.830	-.117	.027	.420	304.0	.677	-.080	.027	.433
186.0	.330	-.010	-.018	.575	246.0	.840	-.120	.027	.417	306.0	.664	-.077	.026	.437
188.0	.356	-.012	-.020	.568	248.0	.842	-.120	.027	.414	308.0	.646	-.074	.029	.441
190.0	.379	-.014	-.016	.561	250.0	.837	-.120	.032	.412	310.0	.619	-.071	.029	.445
192.0	.403	-.016	-.017	.555	252.0	.832	-.118	.030	.409	312.0	.595	-.068	.027	.450
194.0	.432	-.019	-.017	.548	254.0	.832	-.119	.030	.407	314.0	.592	-.065	.026	.454
196.0	.459	-.022	-.015	.541	256.0	.826	-.119	.033	.406	316.0	.583	-.062	.022	.459
198.0	.484	-.026	-.012	.535	258.0	.805	-.117	.040	.404	318.0	.593	-.059	.012	.464
200.0	.505	-.028	-.008	.528	260.0	.806	-.117	.036	.403	320.0	.584	-.056	.009	.469
202.0	.531	-.033	-.006	.522	262.0	.809	-.116	.035	.402	322.0	.561	-.052	.011	.475
204.0	.553	-.038	-.008	.516	264.0	.812	-.116	.032	.401	324.0	.551	-.049	.012	.480
206.0	.589	-.044	-.006	.510	266.0	.807	-.115	.032	.400	326.0	.529	-.046	.012	.486
208.0	.616	-.049	-.006	.504	268.0	.804	-.114	.033	.400	328.0	.525	-.044	.009	.491
210.0	.635	-.054	-.002	.498	270.0	.801	-.111	.035	.400	330.0	.514	-.043	.007	.497
212.0	.663	-.059	-.002	.492	272.0	.797	-.111	.035	.400	332.0	.506	-.042	.006	.503
214.0	.695	-.065	-.001	.486	274.0	.795	-.110	.033	.400	334.0	.498	-.040	.005	.509
216.0	.714	-.070	.000	.480	276.0	.793	-.109	.030	.401	336.0	.489	-.039	.005	.515
218.0	.728	-.074	.003	.475	278.0	.780	-.107	.033	.402	338.0	.484	-.039	.006	.522
220.0	.735	-.078	.006	.470	280.0	.767	-.105	.035	.403	340.0	.472	-.038	.006	.528
222.0	.757	-.083	.007	.464	282.0	.769	-.104	.035	.404	342.0	.473	-.037	.004	.535
224.0	.770	-.087	.009	.459	284.0	.764	-.103	.034	.405	344.0	.469	-.036	.003	.541
226.0	.786	-.090	.009	.455	286.0	.761	-.100	.031	.407	346.0	.474	-.035	-.002	.548
228.0	.785	-.095	.016	.450	288.0	.767	-.100	.023	.409	348.0	.471	-.035	-.002	.554
230.0	.791	-.099	.019	.446	290.0	.763	-.098	.021	.411	350.0	.455	-.033	-.000	.561
232.0	.799	-.103	.019	.441	292.0	.755	-.096	.020	.414	352.0	.443	-.032	.002	.568
234.0	.802	-.106	.025	.437	294.0	.750	-.095	.020	.416	354.0	.436	-.030	-.001	.575
236.0	.812	-.108	.028	.433	296.0	.738	-.093	.020	.419	356.0	.421	-.028	-.001	.581
238.0	.815	-.111	.029	.429	298.0	.723	-.090	.019	.422	358.0	.405	-.027	-.001	.588

FLT 94 RUN9

AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/20.

FLT 94 RUN 11 TIME 51521.800

RN/M= 14.98 MILLION

ROTOR SPEED= 33.4610 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
2.0	.496	-.041	.017	.593	60.0	.213	-.006	-.007	.790	120.0	-.114	-.008	-.044	.790
2.0	.477	-.038	.016	.601	62.0	.212	-.005	-.007	.793	122.0	-.120	-.009	-.045	.785
4.0	.461	-.036	.014	.609	64.0	.212	-.005	-.007	.797	124.0	-.127	-.010	-.046	.781
6.0	.439	-.034	.013	.617	66.0	.211	-.005	-.006	.800	126.0	-.127	-.011	-.047	.777
8.0	.422	-.031	.012	.624	68.0	.210	-.005	-.006	.803	128.0	-.113	-.011	-.047	.772
10.0	.409	-.030	.007	.632	70.0	.206	-.005	-.005	.806	130.0	-.096	-.010	-.046	.767
12.0	.396	-.028	.004	.640	72.0	.197	-.004	-.004	.809	132.0	-.081	-.010	-.045	.762
14.0	.384	-.025	.001	.648	74.0	.187	-.004	-.004	.811	134.0	-.072	-.009	-.043	.756
16.0	.367	-.023	.000	.655	76.0	.176	-.003	-.006	.813	136.0	-.065	-.010	-.044	.751
18.0	.342	-.020	.003	.663	78.0	.159	-.003	-.007	.815	138.0	-.054	-.011	-.046	.745
20.0	.326	-.019	.004	.670	80.0	.147	-.003	-.009	.817	140.0	-.051	-.011	-.046	.739
22.0	.321	-.018	.001	.678	82.0	.132	-.003	-.012	.818	142.0	-.043	-.010	-.044	.733
24.0	.311	-.016	.001	.685	84.0	.113	-.002	-.013	.819	144.0	-.030	-.010	-.043	.726
26.0	.303	-.015	.001	.692	86.0	.090	-.002	-.013	.819	146.0	-.019	-.010	-.041	.720
28.0	.293	-.014	.000	.699	88.0	.073	-.001	-.013	.820	148.0	-.007	-.010	-.041	.713
30.0	.280	-.013	.002	.706	90.0	.060	-.001	-.015	.820	150.0	.001	-.010	-.039	.706
32.0	.272	-.013	-.002	.713	92.0	.046	-.001	-.017	.820	152.0	.009	-.010	-.035	.700
34.0	.266	-.012	-.004	.720	94.0	.035	-.001	-.019	.819	154.0	.028	-.010	-.036	.692
36.0	.255	-.011	-.001	.726	96.0	.022	-.001	-.023	.819	156.0	.041	-.009	-.033	.685
38.0	.246	-.010	-.001	.733	98.0	.008	-.001	-.026	.818	158.0	.061	-.008	-.032	.678
40.0	.242	-.009	-.003	.739	100.0	-.009	-.001	-.027	.817	160.0	.083	-.007	-.031	.671
42.0	.236	-.008	-.004	.745	102.0	-.023	-.001	-.029	.815	162.0	.106	-.007	-.032	.663
44.0	.231	-.008	-.006	.751	104.0	-.030	-.001	-.032	.813	164.0	.124	-.006	-.028	.656
46.0	.222	-.007	-.005	.756	106.0	-.046	-.001	-.034	.811	166.0	.145	-.006	-.027	.648
48.0	.213	-.006	-.005	.762	108.0	-.057	-.002	-.038	.809	168.0	.169	-.005	-.028	.640
50.0	.215	-.006	-.006	.767	110.0	-.066	-.003	-.039	.806	170.0	.198	-.005	-.029	.632
52.0	.213	-.006	-.006	.772	112.0	-.079	-.004	-.040	.803	172.0	.223	-.006	-.030	.625
54.0	.218	-.006	-.007	.777	114.0	-.092	-.005	-.040	.800	174.0	.246	-.006	-.031	.617
56.0	.215	-.006	-.006	.781	116.0	-.097	-.006	-.043	.797	176.0	.271	-.007	-.031	.609
58.0	.212	-.006	-.006	.785	118.0	-.101	-.007	-.045	.793	178.0	.293	-.008	-.028	.601

FLT 94 RUN11

AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/20.

FLT 94 RUN 11 TIME 51521.800

RN/M= 14.98 MILLION

ROTOR SPEED= 33.4610 RAD/SEC

AZIMUTH	CN	CC	CM	M
180.0	.312	-.009	-.024	.593
182.0	.343	-.010	-.025	.585
184.0	.376	-.011	-.023	.577
186.0	.403	-.015	-.020	.569
188.0	.424	-.018	-.017	.561
190.0	.458	-.021	-.017	.553
192.0	.486	-.025	-.014	.546
194.0	.534	-.029	-.016	.538
196.0	.571	-.035	-.015	.530
198.0	.608	-.041	-.015	.523
200.0	.632	-.048	-.011	.515
202.0	.658	-.055	-.008	.508
204.0	.701	-.062	-.005	.500
206.0	.731	-.069	-.002	.493
208.0	.761	-.074	-.001	.486
210.0	.794	-.080	.001	.479
212.0	.817	-.086	.004	.472
214.0	.832	-.091	.007	.466
216.0	.864	-.097	.006	.459
218.0	.877	-.101	.011	.453
220.0	.888	-.104	.015	.447
222.0	.899	-.109	.018	.441
224.0	.906	-.116	.022	.435
226.0	.910	-.121	.024	.429
228.0	.928	-.124	.024	.424
230.0	.928	-.124	.030	.419
232.0	.938	-.125	.031	.414
234.0	.935	-.126	.032	.409
236.0	.943	-.126	.030	.404
238.0	.943	-.126	.031	.400

AZIMUTH	CN	CC	CM	M
240.0	.946	-.124	.030	.396
242.0	.954	-.123	.027	.392
244.0	.945	-.124	.028	.389
246.0	.946	-.129	.033	.385
248.0	.945	-.133	.037	.382
250.0	.951	-.133	.035	.379
252.0	.949	-.138	.038	.377
254.0	.948	-.145	.043	.374
256.0	.961	-.153	.044	.372
258.0	.973	-.162	.043	.371
260.0	.984	-.167	.045	.369
262.0	.977	-.171	.050	.368
264.0	.981	-.173	.051	.367
266.0	.977	-.172	.050	.366
268.0	.968	-.169	.050	.366
270.0	.962	-.166	.049	.366
272.0	.952	-.163	.048	.366
274.0	.939	-.159	.047	.366
276.0	.933	-.157	.046	.367
278.0	.928	-.153	.044	.368
280.0	.929	-.151	.038	.369
282.0	.919	-.149	.039	.370
284.0	.912	-.146	.037	.372
286.0	.900	-.142	.036	.374
288.0	.889	-.139	.036	.377
290.0	.876	-.136	.036	.379
292.0	.862	-.132	.036	.382
294.0	.854	-.129	.038	.385
296.0	.839	-.125	.041	.388
298.0	.832	-.124	.041	.392

AZIMUTH	CN	CC	CM	M
300.0	.823	-.122	.041	.396
302.0	.807	-.118	.040	.400
304.0	.806	-.115	.039	.404
306.0	.799	-.112	.037	.409
308.0	.774	-.109	.040	.414
310.0	.776	-.105	.036	.419
312.0	.759	-.101	.036	.424
314.0	.740	-.099	.039	.429
316.0	.735	-.097	.034	.435
318.0	.716	-.094	.035	.441
320.0	.705	-.090	.034	.447
322.0	.692	-.088	.034	.453
324.0	.684	-.086	.032	.459
326.0	.690	-.082	.024	.465
328.0	.698	-.079	.016	.472
330.0	.689	-.077	.014	.479
332.0	.678	-.073	.012	.486
334.0	.658	-.072	.017	.493
336.0	.637	-.070	.021	.500
338.0	.624	-.066	.020	.507
340.0	.619	-.064	.017	.515
342.0	.611	-.063	.017	.522
344.0	.603	-.060	.016	.530
346.0	.595	-.058	.014	.538
348.0	.582	-.055	.014	.545
350.0	.572	-.052	.013	.553
352.0	.566	-.051	.012	.561
354.0	.549	-.048	.016	.569
356.0	.539	-.045	.016	.577
358.0	.532	-.043	.012	.585

FLT 94 RUN11

AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/22.

FLT 95 RUN 14 TIME 50390.400

RN/M= 15.16 MILLION

ROTOR SPEED= 34.4732 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
0.0	.500	-.035	.011	.613	60.0	.302	-.010	-.009	.757	120.0	.192	-.011	-.010	.757
2.0	.492	-.034	.014	.619	62.0	.307	-.011	-.005	.760	122.0	.182	-.010	-.012	.754
4.0	.473	-.033	.015	.625	64.0	.307	-.011	-.004	.763	124.0	.171	-.010	-.014	.751
6.0	.450	-.031	.014	.631	66.0	.300	-.011	-.003	.765	126.0	.159	-.009	-.015	.748
8.0	.424	-.030	.014	.636	68.0	.289	-.011	-.003	.767	128.0	.151	-.009	-.016	.744
10.0	.399	-.029	.015	.642	70.0	.287	-.010	-.004	.769	130.0	.149	-.009	-.017	.741
12.0	.380	-.028	.014	.648	72.0	.284	-.009	-.005	.771	132.0	.146	-.009	-.018	.737
14.0	.369	-.027	.013	.653	74.0	.290	-.009	-.006	.773	134.0	.143	-.008	-.017	.733
16.0	.364	-.025	.008	.659	76.0	.291	-.009	-.006	.775	136.0	.144	-.008	-.020	.729
18.0	.360	-.024	.003	.665	78.0	.296	-.009	-.003	.776	138.0	.143	-.009	-.019	.725
20.0	.351	-.022	.001	.670	80.0	.305	-.010	-.001	.777	140.0	.138	-.010	-.019	.720
22.0	.342	-.021	-.000	.675	82.0	.311	-.010	.001	.778	142.0	.138	-.010	-.020	.716
24.0	.334	-.020	-.000	.681	84.0	.316	-.011	.002	.779	144.0	.137	-.010	-.020	.711
26.0	.330	-.018	.000	.686	86.0	.317	-.012	.003	.779	146.0	.136	-.010	-.019	.706
28.0	.330	-.019	-.000	.691	88.0	.314	-.012	.004	.779	148.0	.133	-.010	-.019	.701
30.0	.334	-.017	-.000	.696	90.0	.308	-.012	.006	.779	150.0	.135	-.010	-.020	.696
32.0	.332	-.017	-.000	.701	92.0	.300	-.013	.006	.779	152.0	.141	-.010	-.020	.691
34.0	.324	-.016	.001	.706	94.0	.297	-.013	.006	.779	154.0	.147	-.011	-.022	.686
36.0	.319	-.015	.001	.711	96.0	.288	-.012	.005	.779	156.0	.150	-.011	-.022	.681
38.0	.314	-.015	.001	.716	98.0	.275	-.012	.004	.778	158.0	.153	-.011	-.020	.676
40.0	.309	-.015	.002	.720	100.0	.260	-.012	.003	.777	160.0	.159	-.011	-.021	.670
42.0	.311	-.015	.001	.724	102.0	.242	-.011	.003	.776	162.0	.165	-.011	-.022	.665
44.0	.307	-.015	.000	.729	104.0	.227	-.011	.002	.775	164.0	.165	-.010	-.020	.659
46.0	.298	-.014	.000	.733	106.0	.218	-.011	.001	.773	166.0	.172	-.011	-.021	.654
48.0	.287	-.013	-.001	.737	108.0	.209	-.011	.001	.771	168.0	.177	-.011	-.020	.648
50.0	.279	-.012	-.004	.741	110.0	.202	-.011	-.000	.769	170.0	.186	-.011	-.019	.642
52.0	.264	-.011	-.004	.744	112.0	.197	-.011	-.002	.767	172.0	.185	-.011	-.017	.636
54.0	.258	-.010	-.005	.748	114.0	.195	-.011	-.003	.765	174.0	.187	-.011	-.015	.631
56.0	.265	-.010	-.007	.751	116.0	.193	-.011	-.004	.763	176.0	.197	-.011	-.017	.625
58.0	.280	-.009	-.009	.754	118.0	.194	-.011	-.007	.760	178.0	.204	-.011	-.017	.619

FLT 95 RUN14

## AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/22.

FLT 95 RUN 14 TIME 50390.400

RN/M= 15.16 MILLION

ROTOR SPEED= 34.4732 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
180.0	.211	-.011	-.016	.613	240.0	.672	-.065	.004	.469	300.0	.769	-.096	.030	.469
182.0	.219	-.011	-.016	.608	242.0	.684	-.069	.007	.467	302.0	.787	-.096	.029	.472
184.0	.226	-.011	-.015	.602	244.0	.697	-.074	.008	.464	304.0	.804	-.095	.031	.475
186.0	.231	-.011	-.014	.596	246.0	.712	-.078	.011	.461	306.0	.826	-.093	.032	.479
188.0	.249	-.012	-.017	.590	248.0	.723	-.081	.012	.459	308.0	.790	-.082	.025	.482
190.0	.258	-.012	-.016	.584	250.0	.733	-.085	.014	.457	310.0	.676	-.069	.029	.486
192.0	.264	-.013	-.015	.579	252.0	.745	-.088	.018	.455	312.0	.578	-.057	.029	.490
194.0	.288	-.013	-.019	.573	254.0	.749	-.090	.021	.454	314.0	.508	-.048	.028	.494
196.0	.301	-.014	-.018	.568	256.0	.758	-.093	.022	.452	316.0	.474	-.043	.026	.498
198.0	.302	-.015	-.014	.562	258.0	.758	-.095	.024	.451	318.0	.467	-.040	.023	.502
200.0	.320	-.016	-.015	.556	260.0	.766	-.096	.023	.450	320.0	.473	-.039	.018	.506
202.0	.333	-.017	-.015	.551	262.0	.771	-.098	.024	.449	322.0	.486	-.040	.015	.511
204.0	.341	-.017	-.012	.546	264.0	.764	-.099	.027	.448	324.0	.500	-.042	.013	.515
206.0	.358	-.018	-.013	.540	266.0	.757	-.099	.029	.447	326.0	.505	-.044	.015	.520
208.0	.379	-.020	-.013	.535	268.0	.759	-.100	.029	.447	328.0	.511	-.046	.015	.525
210.0	.395	-.021	-.013	.530	270.0	.762	-.101	.028	.447	330.0	.520	-.047	.015	.530
212.0	.407	-.022	-.011	.525	272.0	.766	-.101	.025	.447	332.0	.528	-.049	.014	.535
214.0	.431	-.023	-.013	.520	274.0	.772	-.101	.023	.447	334.0	.520	-.047	.016	.540
216.0	.457	-.025	-.014	.516	276.0	.763	-.100	.025	.448	336.0	.524	-.048	.014	.545
218.0	.474	-.028	-.014	.511	278.0	.763	-.099	.026	.449	338.0	.517	-.047	.017	.551
220.0	.488	-.030	-.013	.506	280.0	.764	-.099	.025	.450	340.0	.520	-.047	.013	.556
222.0	.510	-.032	-.013	.502	282.0	.775	-.100	.023	.451	342.0	.510	-.046	.015	.562
224.0	.528	-.034	-.012	.498	284.0	.777	-.099	.022	.452	344.0	.505	-.044	.013	.567
226.0	.554	-.038	-.012	.494	286.0	.783	-.098	.020	.453	346.0	.500	-.044	.014	.573
228.0	.565	-.040	-.011	.490	288.0	.767	-.098	.026	.455	348.0	.492	-.042	.017	.578
230.0	.584	-.043	-.012	.486	290.0	.776	-.097	.024	.457	350.0	.492	-.041	.016	.584
232.0	.600	-.047	-.009	.482	292.0	.776	-.096	.024	.459	352.0	.495	-.039	.015	.590
234.0	.609	-.051	-.001	.479	294.0	.759	-.097	.029	.461	354.0	.495	-.038	.015	.596
236.0	.625	-.055	.001	.476	296.0	.762	-.096	.029	.464	356.0	.490	-.037	.016	.601
238.0	.653	-.061	.002	.472	298.0	.763	-.096	.030	.466	358.0	.488	-.036	.016	.607

FLT 95 RUN14

AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/19.

FLT 95 RUN 17 TIME 50544.200

RN/M= 15.16 MILLION

ROTOR SPEED= 34.6237 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
0.0	.444	-.037	.023	.616	60.0	.271	-.008	-.005	.758	120.0	.179	-.008	-.018	.759
2.0	.423	-.035	.019	.622	62.0	.272	-.008	-.005	.761	122.0	.178	-.008	-.019	.756
4.0	.402	-.032	.014	.627	64.0	.284	-.008	-.006	.764	124.0	.173	-.008	-.018	.752
6.0	.388	-.029	.008	.633	66.0	.290	-.008	-.006	.766	126.0	.171	-.008	-.016	.749
8.0	.373	-.026	.003	.639	68.0	.299	-.009	-.006	.769	128.0	.172	-.008	-.016	.746
10.0	.361	-.023	-.000	.645	70.0	.302	-.009	-.003	.771	130.0	.174	-.008	-.016	.742
12.0	.355	-.022	-.002	.650	72.0	.308	-.010	-.002	.772	132.0	.172	-.009	-.014	.738
14.0	.343	-.020	-.002	.656	74.0	.315	-.011	-.001	.774	134.0	.174	-.009	-.014	.734
16.0	.326	-.019	-.002	.661	76.0	.317	-.011	.000	.776	136.0	.178	-.009	-.014	.730
18.0	.313	-.018	-.001	.667	78.0	.315	-.012	.001	.777	138.0	.182	-.009	-.015	.726
20.0	.309	-.017	-.001	.672	80.0	.311	-.012	.004	.778	140.0	.184	-.009	-.015	.722
22.0	.323	-.017	-.005	.678	82.0	.307	-.012	.004	.779	142.0	.192	-.010	-.016	.717
24.0	.340	-.016	-.006	.683	84.0	.302	-.012	.003	.780	144.0	.195	-.010	-.016	.713
26.0	.342	-.015	-.004	.688	86.0	.288	-.012	.004	.780	146.0	.195	-.010	-.015	.708
28.0	.327	-.015	-.000	.693	88.0	.272	-.012	.006	.780	148.0	.198	-.010	-.015	.703
30.0	.318	-.015	-.001	.698	90.0	.265	-.012	.003	.781	150.0	.202	-.010	-.015	.698
32.0	.309	-.015	-.001	.703	92.0	.251	-.011	.002	.780	152.0	.211	-.010	-.016	.693
34.0	.301	-.014	-.003	.708	94.0	.236	-.011	.002	.780	154.0	.218	-.010	-.015	.688
36.0	.286	-.013	-.003	.713	96.0	.225	-.010	.001	.780	156.0	.221	-.010	-.015	.683
38.0	.275	-.013	-.004	.717	98.0	.216	-.010	-.000	.779	158.0	.231	-.010	-.015	.678
40.0	.271	-.012	-.007	.722	100.0	.214	-.010	-.001	.778	160.0	.237	-.010	-.014	.672
42.0	.257	-.011	-.005	.726	102.0	.211	-.010	-.002	.777	162.0	.243	-.011	-.012	.667
44.0	.249	-.011	-.005	.730	104.0	.211	-.010	-.005	.776	164.0	.250	-.011	-.012	.661
46.0	.242	-.010	-.005	.734	106.0	.212	-.010	-.007	.774	166.0	.252	-.012	-.011	.656
48.0	.250	-.010	-.007	.738	108.0	.209	-.010	-.007	.773	168.0	.263	-.012	-.011	.650
50.0	.263	-.010	-.008	.742	110.0	.209	-.010	-.009	.771	170.0	.276	-.013	-.013	.645
52.0	.280	-.009	-.011	.746	112.0	.202	-.010	-.011	.769	172.0	.284	-.013	-.011	.639
54.0	.283	-.009	-.009	.749	114.0	.194	-.009	-.013	.766	174.0	.290	-.014	-.010	.633
56.0	.276	-.008	-.006	.752	116.0	.187	-.009	-.014	.764	176.0	.298	-.015	-.009	.628
58.0	.273	-.008	-.005	.756	118.0	.179	-.009	-.016	.761	178.0	.307	-.016	-.008	.622

FLT 95 RUN17

## AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 95 RUN 17 TIME 50544.200

RN/M= 15.16 MILLION

ROTOR SPEED= 34.6237 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
180.0	.318	-.017	-.008	.616	240.0	.738	-.083	.015	.474	300.0	.850	-.097	.035	.473
182.0	.330	-.017	-.009	.610	242.0	.749	-.086	.016	.471	302.0	.756	-.086	.034	.476
184.0	.343	-.018	-.010	.605	244.0	.751	-.089	.019	.468	304.0	.649	-.072	.033	.479
186.0	.356	-.019	-.011	.599	246.0	.755	-.091	.021	.466	306.0	.567	-.060	.032	.483
188.0	.365	-.020	-.010	.593	248.0	.760	-.092	.022	.463	308.0	.512	-.053	.034	.486
190.0	.374	-.021	-.008	.588	250.0	.757	-.094	.026	.461	310.0	.490	-.049	.033	.490
192.0	.388	-.022	-.007	.582	252.0	.763	-.096	.023	.460	312.0	.499	-.047	.025	.494
194.0	.404	-.023	-.006	.576	254.0	.762	-.097	.023	.458	314.0	.510	-.046	.019	.497
196.0	.420	-.025	-.009	.571	256.0	.765	-.098	.024	.456	316.0	.514	-.046	.015	.502
198.0	.431	-.026	-.008	.565	258.0	.767	-.099	.025	.455	318.0	.526	-.048	.014	.506
200.0	.435	-.028	-.004	.560	260.0	.770	-.099	.026	.454	320.0	.536	-.050	.015	.510
202.0	.450	-.029	-.006	.554	262.0	.770	-.100	.028	.453	322.0	.548	-.051	.015	.515
204.0	.469	-.031	-.007	.549	264.0	.770	-.100	.026	.452	324.0	.554	-.052	.015	.519
206.0	.475	-.033	-.004	.544	266.0	.769	-.100	.028	.452	326.0	.556	-.053	.013	.524
208.0	.492	-.035	-.004	.539	268.0	.772	-.099	.026	.452	328.0	.558	-.053	.014	.529
210.0	.510	-.037	-.004	.534	270.0	.774	-.101	.027	.451	330.0	.551	-.053	.017	.534
212.0	.528	-.039	-.005	.529	272.0	.777	-.100	.027	.452	332.0	.552	-.052	.015	.539
214.0	.543	-.042	-.005	.524	274.0	.773	-.100	.027	.452	334.0	.555	-.052	.012	.544
216.0	.560	-.044	-.004	.519	276.0	.777	-.101	.026	.452	336.0	.546	-.050	.014	.549
218.0	.576	-.048	-.003	.515	278.0	.783	-.102	.025	.453	338.0	.538	-.049	.016	.554
220.0	.600	-.051	-.004	.510	280.0	.779	-.099	.026	.454	340.0	.533	-.048	.017	.560
222.0	.619	-.055	-.003	.506	282.0	.775	-.098	.029	.455	342.0	.528	-.047	.016	.565
224.0	.632	-.057	.001	.502	284.0	.779	-.099	.028	.456	344.0	.530	-.046	.015	.570
226.0	.654	-.061	.001	.498	286.0	.785	-.099	.029	.458	346.0	.525	-.044	.016	.576
228.0	.665	-.065	.005	.494	288.0	.793	-.100	.030	.459	348.0	.526	-.043	.017	.582
230.0	.677	-.068	.006	.490	290.0	.803	-.101	.031	.461	350.0	.529	-.043	.017	.587
232.0	.688	-.071	.008	.486	292.0	.809	-.101	.032	.463	352.0	.531	-.042	.018	.593
234.0	.704	-.074	.009	.483	294.0	.820	-.101	.033	.466	354.0	.546	-.043	.018	.599
236.0	.713	-.077	.012	.480	296.0	.843	-.102	.034	.468	356.0	.544	-.044	.021	.604
238.0	.726	-.080	.013	.476	298.0	.866	-.101	.036	.471	358.0	.512	-.041	.021	.610

FLT 95 RUN17

## AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/10/06.

FLT 96 RUN 2 TIME 42084.800

RN/M= 14.55 MILLION

ROTOR SPEED= 33.5944 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
0.0	.244	-.010	-.011	.589	60.0	.381	-.029	.009	.589	120.0	.355	-.025	.006	.589
2.0	.251	-.010	-.010	.589	62.0	.381	-.030	.009	.589	122.0	.355	-.025	.004	.589
4.0	.254	-.011	-.008	.589	64.0	.383	-.029	.009	.589	124.0	.351	-.024	.005	.589
6.0	.265	-.011	-.008	.589	66.0	.385	-.029	.008	.589	126.0	.343	-.024	.005	.589
8.0	.270	-.012	-.005	.589	68.0	.382	-.029	.009	.589	128.0	.336	-.022	.006	.589
10.0	.283	-.013	-.004	.589	70.0	.384	-.029	.008	.589	130.0	.333	-.022	.006	.589
12.0	.295	-.013	-.005	.589	72.0	.381	-.030	.009	.589	132.0	.331	-.022	.006	.589
14.0	.306	-.015	-.004	.589	74.0	.376	-.029	.009	.589	134.0	.331	-.022	.006	.589
16.0	.317	-.017	-.001	.589	76.0	.377	-.029	.009	.589	136.0	.330	-.021	.005	.589
18.0	.324	-.017	.001	.589	78.0	.375	-.029	.009	.589	138.0	.328	-.021	.007	.589
20.0	.327	-.018	.003	.589	80.0	.375	-.029	.008	.589	140.0	.328	-.021	.007	.589
22.0	.335	-.020	.002	.589	82.0	.375	-.029	.007	.589	142.0	.339	-.021	.004	.589
24.0	.340	-.021	.003	.589	84.0	.372	-.028	.008	.589	144.0	.342	-.021	.005	.589
26.0	.342	-.021	.004	.589	86.0	.371	-.029	.008	.589	146.0	.348	-.022	.006	.589
28.0	.345	-.022	.006	.589	88.0	.370	-.028	.008	.589	148.0	.351	-.024	.009	.589
30.0	.352	-.023	.005	.589	90.0	.372	-.028	.008	.589	150.0	.360	-.025	.009	.589
32.0	.356	-.023	.005	.589	92.0	.375	-.028	.007	.589	152.0	.364	-.026	.009	.589
34.0	.362	-.024	.003	.589	94.0	.375	-.028	.008	.589	154.0	.369	-.027	.010	.589
36.0	.364	-.024	.004	.589	96.0	.373	-.028	.009	.589	156.0	.370	-.028	.011	.589
38.0	.364	-.025	.005	.589	98.0	.374	-.028	.009	.589	158.0	.373	-.028	.012	.589
40.0	.363	-.025	.006	.589	100.0	.373	-.029	.009	.589	160.0	.379	-.029	.011	.589
42.0	.371	-.026	.008	.589	102.0	.373	-.028	.009	.589	162.0	.385	-.030	.011	.589
44.0	.375	-.027	.009	.589	104.0	.375	-.029	.007	.589	164.0	.385	-.030	.011	.589
46.0	.375	-.027	.009	.589	106.0	.368	-.027	.008	.589	166.0	.384	-.030	.011	.589
48.0	.377	-.027	.009	.589	108.0	.365	-.027	.008	.589	168.0	.382	-.030	.010	.589
50.0	.383	-.029	.010	.589	110.0	.363	-.027	.009	.589	170.0	.383	-.030	.009	.589
52.0	.387	-.029	.010	.589	112.0	.362	-.027	.008	.589	172.0	.370	-.030	.009	.589
54.0	.385	-.029	.010	.589	114.0	.359	-.027	.008	.589	174.0	.361	-.028	.010	.589
56.0	.383	-.029	.010	.589	116.0	.360	-.027	.007	.589	176.0	.355	-.028	.009	.589
58.0	.382	-.029	.010	.589	118.0	.357	-.026	.007	.589	178.0	.349	-.026	.007	.589

FLT 96 RUN2



AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/10/06.

FLT 96 RUN 2 TIME 42084.800

RN/M= 14.55 MILLION

ROTOR SPEED= 33.5944 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
180.0	.341	-.025	.007	.589	240.0	.382	-.029	.010	.589	300.0	.372	-.023	.001	.589
182.0	.333	-.023	.006	.589	242.0	.386	-.030	.010	.589	302.0	.363	-.024	.006	.589
184.0	.325	-.021	.005	.589	244.0	.387	-.029	.007	.589	304.0	.342	-.023	.005	.589
186.0	.316	-.020	.005	.589	246.0	.358	-.027	.009	.589	306.0	.318	-.021	.003	.589
188.0	.311	-.019	.004	.589	248.0	.330	-.024	.009	.589	308.0	.315	-.018	-.002	.589
190.0	.308	-.018	.002	.589	250.0	.314	-.021	.007	.589	310.0	.337	-.019	-.003	.589
192.0	.304	-.017	.002	.589	252.0	.309	-.019	.004	.589	312.0	.364	-.022	-.003	.589
194.0	.313	-.017	.002	.589	254.0	.320	-.019	-.002	.589	314.0	.368	-.023	.001	.589
196.0	.333	-.019	-.000	.589	256.0	.334	-.019	-.003	.589	316.0	.352	-.023	.004	.589
198.0	.336	-.020	.002	.589	258.0	.346	-.020	.000	.589	318.0	.343	-.022	.005	.589
200.0	.333	-.021	.002	.589	260.0	.346	-.021	.002	.589	320.0	.359	-.024	.004	.589
202.0	.321	-.020	.004	.589	262.0	.336	-.021	.003	.589	322.0	.374	-.026	.003	.589
204.0	.323	-.020	.004	.589	264.0	.327	-.021	.004	.589	324.0	.371	-.027	.003	.589
206.0	.327	-.019	.000	.589	266.0	.330	-.021	.003	.589	326.0	.352	-.026	.003	.589
208.0	.331	-.018	-.001	.589	268.0	.338	-.021	.002	.589	328.0	.322	-.022	.001	.589
210.0	.335	-.019	.002	.589	270.0	.353	-.022	.002	.589	330.0	.277	-.019	.002	.589
212.0	.342	-.020	.001	.589	272.0	.364	-.023	.004	.589	332.0	.256	-.015	-.004	.589
214.0	.347	-.020	.002	.589	274.0	.377	-.025	.005	.589	334.0	.249	-.013	-.009	.589
216.0	.358	-.022	.003	.589	276.0	.395	-.027	.007	.589	336.0	.258	-.012	-.015	.589
218.0	.361	-.023	.005	.589	278.0	.418	-.029	.008	.589	338.0	.250	-.011	-.016	.589
220.0	.358	-.024	.007	.589	280.0	.422	-.031	.008	.589	340.0	.228	-.009	-.014	.589
222.0	.361	-.025	.008	.589	282.0	.390	-.030	.011	.589	342.0	.207	-.008	-.012	.589
224.0	.374	-.026	.008	.589	284.0	.356	-.028	.010	.589	344.0	.189	-.007	-.009	.589
226.0	.385	-.027	.006	.589	286.0	.331	-.026	.006	.589	346.0	.169	-.007	-.011	.589
228.0	.385	-.027	.006	.589	288.0	.313	-.021	.001	.589	348.0	.205	-.007	-.016	.589
230.0	.382	-.028	.007	.589	290.0	.303	-.019	-.005	.589	350.0	.214	-.008	-.018	.589
232.0	.380	-.029	.009	.589	292.0	.292	-.016	-.006	.589	352.0	.219	-.008	-.015	.589
234.0	.380	-.029	.007	.589	294.0	.293	-.016	-.008	.589	354.0	.224	-.008	-.012	.589
236.0	.377	-.029	.008	.589	296.0	.317	-.017	-.006	.589	356.0	.232	-.008	-.012	.589
238.0	.380	-.029	.007	.589	298.0	.353	-.019	-.003	.589	358.0	.239	-.009	-.011	.589

FLT 96 RUN2

AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/21.

FLT 96 RUN 3 TIME 42324.700

RN/M= 14.65 MILLION

ROTOR SPEED= 33.9481 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
0.0	.250	-.012	-.005	.597	60.0	.109	-.004	-.016	.681	120.0	.095	-.004	-.015	.681
2.0	.244	-.011	-.006	.600	62.0	.110	-.005	-.015	.682	122.0	.090	-.004	-.015	.679
4.0	.233	-.010	-.007	.603	64.0	.110	-.004	-.014	.684	124.0	.088	-.004	-.015	.677
6.0	.224	-.010	-.008	.607	66.0	.109	-.005	-.014	.685	126.0	.086	-.004	-.015	.675
8.0	.212	-.009	-.009	.610	68.0	.112	-.005	-.016	.687	128.0	.086	-.004	-.016	.673
10.0	.203	-.009	-.009	.613	70.0	.115	-.004	-.016	.688	130.0	.089	-.004	-.017	.671
12.0	.197	-.008	-.009	.617	72.0	.124	-.004	-.017	.689	132.0	.088	-.003	-.018	.669
14.0	.191	-.009	-.010	.620	74.0	.132	-.004	-.016	.690	134.0	.088	-.003	-.017	.667
16.0	.183	-.008	-.009	.623	76.0	.144	-.003	-.015	.691	136.0	.086	-.003	-.017	.664
18.0	.171	-.008	-.007	.627	78.0	.157	-.004	-.012	.692	138.0	.086	-.003	-.017	.662
20.0	.167	-.008	-.009	.630	80.0	.159	-.005	-.010	.692	140.0	.086	-.003	-.018	.659
22.0	.160	-.007	-.010	.633	82.0	.160	-.006	-.009	.693	142.0	.084	-.003	-.018	.657
24.0	.152	-.007	-.010	.636	84.0	.163	-.006	-.008	.693	144.0	.088	-.003	-.018	.654
26.0	.145	-.007	-.010	.639	86.0	.158	-.007	-.008	.694	146.0	.090	-.004	-.017	.651
28.0	.138	-.007	-.010	.642	88.0	.155	-.007	-.008	.694	148.0	.096	-.003	-.018	.648
30.0	.134	-.007	-.010	.645	90.0	.154	-.007	-.008	.694	150.0	.100	-.003	-.018	.645
32.0	.128	-.006	-.010	.648	92.0	.149	-.007	-.010	.694	152.0	.103	-.004	-.017	.642
34.0	.121	-.006	-.011	.651	94.0	.146	-.006	-.010	.694	154.0	.105	-.004	-.016	.639
36.0	.115	-.006	-.011	.654	96.0	.141	-.005	-.011	.693	156.0	.114	-.004	-.018	.636
38.0	.110	-.005	-.012	.656	98.0	.139	-.006	-.012	.693	158.0	.116	-.004	-.017	.633
40.0	.104	-.005	-.011	.659	100.0	.135	-.005	-.013	.692	160.0	.120	-.004	-.017	.630
42.0	.102	-.005	-.013	.662	102.0	.126	-.005	-.013	.692	162.0	.124	-.004	-.018	.627
44.0	.104	-.005	-.015	.664	104.0	.124	-.005	-.014	.691	164.0	.126	-.004	-.017	.623
46.0	.097	-.006	-.014	.667	106.0	.123	-.004	-.015	.690	166.0	.128	-.003	-.017	.620
48.0	.093	-.005	-.014	.669	108.0	.117	-.005	-.017	.689	168.0	.136	-.003	-.018	.617
50.0	.084	-.005	-.014	.671	110.0	.110	-.004	-.015	.688	170.0	.137	-.003	-.018	.613
52.0	.069	-.005	-.014	.673	112.0	.101	-.005	-.012	.687	172.0	.132	-.003	-.017	.610
54.0	.066	-.005	-.016	.675	114.0	.106	-.004	-.015	.686	174.0	.136	-.003	-.017	.607
56.0	.075	-.005	-.017	.677	116.0	.096	-.005	-.013	.684	176.0	.144	-.003	-.018	.603
58.0	.092	-.005	-.017	.679	118.0	.096	-.004	-.014	.683	178.0	.151	-.003	-.019	.600

FLT 96 RUN3

AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-16

78/12/21.

FLT 96. RUN 3 TIME 42324.700

RN/M= 14.65 MILLION

ROTOR SPEED= 33.9481 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
180.0	.152	-.003	-.017	.597	240.0	.414	-.021	-.007	.512	300.0	.321	-.015	-.002	.512
182.0	.158	-.003	-.016	.593	242.0	.427	-.023	-.006	.511	302.0	.321	-.015	-.002	.514
184.0	.165	-.004	-.016	.590	244.0	.438	-.024	-.007	.509	304.0	.328	-.015	-.005	.516
186.0	.169	-.004	-.016	.586	246.0	.451	-.026	-.004	.508	306.0	.330	-.016	-.004	.518
188.0	.175	-.004	-.015	.583	248.0	.455	-.028	-.002	.506	308.0	.340	-.016	-.005	.520
190.0	.180	-.004	-.016	.580	250.0	.472	-.031	.000	.505	310.0	.342	-.016	-.005	.522
192.0	.186	-.004	-.015	.576	252.0	.481	-.032	.003	.504	312.0	.345	-.017	-.004	.524
194.0	.186	-.004	-.014	.573	254.0	.499	-.035	.002	.503	314.0	.347	-.017	-.004	.526
196.0	.189	-.005	-.013	.570	256.0	.512	-.038	.005	.502	316.0	.349	-.018	-.004	.529
198.0	.195	-.005	-.013	.566	258.0	.523	-.042	.009	.501	318.0	.350	-.018	-.004	.531
200.0	.207	-.005	-.014	.563	260.0	.533	-.046	.013	.501	320.0	.355	-.019	-.003	.534
202.0	.214	-.006	-.015	.560	262.0	.546	-.050	.014	.500	322.0	.358	-.019	-.004	.536
204.0	.223	-.006	-.016	.557	264.0	.545	-.052	.018	.500	324.0	.362	-.019	-.005	.539
206.0	.230	-.006	-.015	.554	266.0	.540	-.051	.018	.499	326.0	.353	-.019	-.000	.542
208.0	.235	-.006	-.014	.551	268.0	.509	-.046	.013	.499	328.0	.356	-.019	.000	.545
210.0	.253	-.007	-.015	.548	270.0	.461	-.039	.009	.499	330.0	.354	-.019	.001	.548
212.0	.264	-.008	-.016	.545	272.0	.413	-.030	.003	.499	332.0	.351	-.019	.001	.551
214.0	.268	-.008	-.015	.542	274.0	.377	-.023	-.001	.499	334.0	.353	-.019	.001	.554
216.0	.284	-.009	-.014	.539	276.0	.342	-.018	-.001	.500	336.0	.350	-.019	.001	.557
218.0	.288	-.009	-.012	.537	278.0	.338	-.015	-.009	.500	338.0	.352	-.019	-.001	.560
220.0	.295	-.009	-.011	.534	280.0	.324	-.014	-.010	.501	340.0	.339	-.019	.001	.563
222.0	.310	-.011	-.011	.531	282.0	.329	-.014	-.013	.501	342.0	.337	-.019	-.001	.566
224.0	.317	-.012	-.010	.529	284.0	.328	-.013	-.013	.502	344.0	.324	-.018	.000	.570
226.0	.332	-.013	-.012	.527	286.0	.323	-.013	-.010	.503	346.0	.311	-.017	.001	.573
228.0	.350	-.014	-.012	.524	288.0	.324	-.014	-.009	.504	348.0	.304	-.017	-.001	.576
230.0	.351	-.015	-.010	.522	290.0	.320	-.014	-.007	.505	350.0	.299	-.016	-.002	.580
232.0	.373	-.016	-.013	.520	292.0	.324	-.014	-.006	.506	352.0	.296	-.015	-.005	.583
234.0	.383	-.017	-.012	.518	294.0	.330	-.015	-.007	.508	354.0	.285	-.014	-.005	.586
236.0	.391	-.018	-.009	.516	296.0	.327	-.014	-.007	.509	356.0	.275	-.014	-.005	.590
238.0	.403	-.019	-.008	.514	298.0	.326	-.015	-.005	.511	358.0	.259	-.013	-.004	.593

FLT 96 RUN3

AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 96 RUN 9 TIME 42851.700

RN/M= 14.64 MILLION

ROTOR SPEED= 33.9896 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
0.0	.242	-.010	-.006	.597	60.0	.153	-.007	-.010	.738	120.0	-.053	-.005	-.031	.739
2.0	.233	-.009	-.007	.603	62.0	.156	-.007	-.011	.741	122.0	-.057	-.006	-.031	.739
4.0	.221	-.008	-.007	.608	64.0	.162	-.007	-.010	.744	124.0	-.060	-.006	-.030	.732
6.0	.215	-.007	-.008	.614	66.0	.172	-.006	-.010	.746	126.0	-.063	-.006	-.030	.729
8.0	.208	-.008	-.008	.620	68.0	.174	-.006	-.008	.748	128.0	-.057	-.007	-.032	.726
10.0	.199	-.007	-.008	.625	70.0	.171	-.006	-.007	.750	130.0	-.057	-.007	-.031	.722
12.0	.195	-.007	-.008	.631	72.0	.164	-.006	-.005	.752	132.0	-.052	-.006	-.031	.719
14.0	.186	-.007	-.005	.637	74.0	.155	-.007	-.004	.754	134.0	-.050	-.009	-.031	.714
16.0	.187	-.006	-.003	.642	76.0	.143	-.006	-.004	.755	136.0	-.049	-.009	-.031	.710
18.0	.180	-.006	-.006	.647	78.0	.138	-.006	-.006	.756	138.0	-.045	-.009	-.031	.706
20.0	.179	-.006	-.003	.653	80.0	.125	-.005	-.007	.758	140.0	-.045	-.009	-.030	.702
22.0	.182	-.006	-.011	.658	82.0	.114	-.005	-.010	.758	142.0	-.039	-.009	-.031	.697
24.0	.177	-.006	-.011	.663	84.0	.105	-.005	-.013	.759	144.0	-.034	-.010	-.031	.693
26.0	.172	-.006	-.011	.669	86.0	.090	-.005	-.015	.760	146.0	-.034	-.009	-.028	.688
28.0	.165	-.006	-.010	.674	88.0	.078	-.004	-.016	.760	148.0	-.033	-.009	-.027	.683
30.0	.166	-.006	-.010	.679	90.0	.067	-.004	-.018	.760	150.0	-.024	-.009	-.027	.679
32.0	.168	-.006	-.012	.683	92.0	.058	-.004	-.020	.760	152.0	-.010	-.009	-.027	.674
34.0	.161	-.006	-.011	.688	94.0	.042	-.004	-.020	.760	154.0	-.002	-.003	-.026	.669
36.0	.158	-.006	-.010	.693	96.0	.028	-.004	-.020	.759	156.0	.010	-.003	-.027	.663
38.0	.158	-.006	-.010	.697	98.0	.023	-.004	-.023	.758	158.0	.021	-.007	-.027	.658
40.0	.157	-.006	-.010	.702	100.0	.013	-.003	-.023	.758	160.0	.032	-.007	-.028	.653
42.0	.156	-.006	-.011	.706	102.0	-.009	-.003	-.021	.756	162.0	.043	-.006	-.026	.648
44.0	.159	-.007	-.010	.710	104.0	-.015	-.004	-.023	.755	164.0	.053	-.006	-.026	.642
46.0	.159	-.007	-.010	.714	106.0	-.016	-.004	-.027	.754	166.0	.065	-.005	-.025	.637
48.0	.163	-.007	-.011	.718	108.0	-.022	-.005	-.029	.752	168.0	.074	-.005	-.024	.631
50.0	.164	-.007	-.010	.722	110.0	-.032	-.004	-.029	.750	170.0	.081	-.005	-.023	.625
52.0	.158	-.007	-.009	.725	112.0	-.041	-.004	-.029	.748	172.0	.096	-.005	-.023	.620
54.0	.158	-.007	-.010	.729	114.0	-.042	-.005	-.030	.746	174.0	.108	-.005	-.023	.614
56.0	.152	-.007	-.010	.732	116.0	-.046	-.005	-.030	.744	176.0	.122	-.005	-.022	.609
58.0	.153	-.007	-.010	.735	118.0	-.050	-.005	-.031	.741	178.0	.138	-.005	-.023	.603

FLT 96 RUN9

AIRFOIL COEFFICIENT DATA .9 BLADE RADIUS

NASA-LANGLEY AH-1G

78/12/19.

FLT 96 RUN 9 TIME 42851.700

RN/M= 14.64 MILLION

ROTOR SPEED= 33.9896 RAD/SEC

AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M	AZIMUTH	CN	CC	CM	M
180.0	.148	-.005	-.022	.597	240.0	.592	-.057	.017	.456	300.0	.480	-.034	.005	.456
182.0	.167	-.005	-.023	.592	242.0	.592	-.058	.018	.453	302.0	.457	-.031	.005	.459
184.0	.180	-.005	-.023	.586	244.0	.596	-.059	.019	.451	304.0	.445	-.028	.002	.462
186.0	.198	-.005	-.024	.580	246.0	.597	-.060	.021	.448	306.0	.431	-.025	-.000	.465
188.0	.207	-.005	-.023	.575	248.0	.597	-.061	.022	.446	308.0	.424	-.023	-.002	.469
190.0	.227	-.006	-.023	.569	250.0	.595	-.060	.022	.444	310.0	.391	-.021	.003	.472
192.0	.251	-.007	-.025	.563	252.0	.597	-.060	.021	.442	312.0	.372	-.020	.006	.476
194.0	.262	-.007	-.020	.558	254.0	.591	-.061	.024	.441	314.0	.359	-.019	.004	.480
196.0	.287	-.009	-.020	.552	256.0	.592	-.060	.021	.439	316.0	.353	-.019	.004	.484
198.0	.301	-.010	-.017	.547	258.0	.596	-.059	.019	.438	318.0	.353	-.018	.000	.488
200.0	.323	-.012	-.017	.541	260.0	.594	-.058	.018	.437	320.0	.348	-.017	-.001	.492
202.0	.358	-.014	-.021	.536	262.0	.590	-.057	.019	.436	322.0	.331	-.015	.003	.497
204.0	.376	-.016	-.020	.531	264.0	.586	-.056	.017	.435	324.0	.323	-.015	.003	.501
206.0	.391	-.017	-.017	.526	266.0	.585	-.055	.017	.435	326.0	.318	-.015	.003	.506
208.0	.406	-.019	-.014	.521	268.0	.586	-.055	.016	.434	328.0	.312	-.015	.002	.511
210.0	.422	-.021	-.013	.516	270.0	.586	-.054	.016	.434	330.0	.306	-.014	.002	.516
212.0	.444	-.023	-.011	.511	272.0	.583	-.053	.015	.434	332.0	.305	-.014	.002	.520
214.0	.461	-.026	-.010	.506	274.0	.585	-.052	.013	.435	334.0	.299	-.014	.003	.526
216.0	.473	-.028	-.007	.501	276.0	.575	-.052	.014	.435	336.0	.300	-.014	.002	.531
218.0	.489	-.031	-.005	.497	278.0	.571	-.051	.014	.436	338.0	.303	-.014	-.002	.536
220.0	.500	-.033	-.003	.492	280.0	.566	-.051	.014	.437	340.0	.299	-.014	-.001	.541
222.0	.510	-.035	.001	.488	282.0	.558	-.049	.013	.438	342.0	.297	-.014	-.000	.547
224.0	.525	-.039	.004	.484	284.0	.554	-.049	.013	.439	344.0	.296	-.013	-.002	.552
226.0	.538	-.041	.005	.480	286.0	.551	-.048	.013	.440	346.0	.294	-.014	-.001	.558
228.0	.552	-.044	.007	.476	288.0	.549	-.046	.011	.442	348.0	.295	-.013	-.001	.563
230.0	.560	-.047	.010	.472	290.0	.546	-.045	.010	.444	350.0	.290	-.013	-.002	.569
232.0	.570	-.049	.013	.469	292.0	.531	-.044	.010	.446	352.0	.288	-.013	-.005	.574
234.0	.583	-.052	.014	.465	294.0	.523	-.041	.008	.448	354.0	.280	-.012	-.006	.580
236.0	.591	-.054	.014	.462	296.0	.514	-.039	.007	.451	356.0	.274	-.011	-.007	.586
238.0	.595	-.056	.015	.459	298.0	.499	-.036	.005	.453	358.0	.257	-.010	-.006	.591

FLT 96 RUN9

## REFERENCES

1. Dadone, Leo: Rotor Airfoil Optimization: An Understanding of the Physical Limits. Paper Number 78-04, Am. Helicopter Soc., May 1978,
2. Blackwell, James R., Jr.; and Hinson, Bobby L.: The Aerodynamic Design of an Advanced Rotor Airfoil. NASA CR-2961, 1978.
3. Morris, Charles E. K., Jr.: A Flight Investigation of Basic Performance Characteristics of a Teetering-Rotor Attack Helicopter. NASA TM 80112, 1979.
4. Morris, Charles E. K., Jr.; Tomaine, Robert L.; and Stevens, Dariene D.: A Flight Investigation of Performance and Loads for a Helicopter with NLR-1T Main-Rotor Blade Sections. NASA TM 80165, 1979.
5. Morris, Charles E. K., Jr.; Tomaine, Robert L.; and Stevens, Dariene D.: A Flight Investigation of Performance and Loads for a Helicopter With 10-64C Main-Rotor Blade Sections. NASA TM 81871, (AVRADCOM TM 80-B-2), 1980.
6. Morris, Charles E. K., Jr.; Tomaine, Robert L.; and Stevens, Dariene D.: A Flight Investigation of Performance and Loads for a Helicopter With RC-SC2 Main-Rotor Blade Sections. NASA TM 81898 (AVRADCOM TM 81-B-1), 1980.
7. Morris, Charles E. K., Jr.; Stevens, Dariene D.; and Tomaine, Robert L.: A Flight Investigation of Blade-Section Aerodynamics for a Helicopter Main Rotor Having NLR-1T Airfoil Sections. NASA TM 80166 (AVRADCOM TM 80-B-1). 1980.
8. Morris, Charles E. K., Jr.: A Flight Investigation of Blade-Section Aerodynamics for a Helicopter Main Rotor Having 10-64C Airfoil Sections. NASA TM 83226, 1981.
9. Bingham, Gene J.; and Noonan, Kevin W.: Low-Speed Aerodynamic Characteristics of Five Helicopter Blade Sections at Reynolds Numbers From  $2.4 \times 10^6$  to  $8.4 \times 10^6$ . NASA TM x-2467, 1972.
10. Robinson, Frank: Increasing Tail Rotor Thrust and Comments on Other Yaw Control Devices. J. Am. Helicopter Soc., Vol. 15., No. 4, October 1970, pp. 46-52.
11. Knight, Vernie H.; Haywood, William S., Jr.; and Williams, Milton L.: A Rotor-Mounted Digital Instrumentation System for Helicopter Blade Flight Research Measurements. NASA TP 1146, 1978.
12. James, C. A.: A Suite of Computer Programs for the Automatic Analysis of Helicopter Rotor Blade Pressure Measurements. Tech. Memo. FS47, British R.A.E., October 1975.
13. Bauer, Frances; Garabedian, Paul; Korn, David; and Jameson, Antony: Supercritical Wing Sections II. Lecture Notes in Economics and Mathematical Systems, Vol. 150, Springer-Verlag (New York), 1977.

TABLE I.- BASIC AIRCRAFT CHARACTERISTICS

Empty weight, N (lb.)	28,260 (6354)
Fuel capacity, N (lb.)	7,250 (1630)
Powerplant.	Lycoming T53-L-13B
Nominal transmission limit at 100% rpm, kw (hp)	.820 (1100)

## Wing:

## Airfoil

Root	NACA 0030
------	-----------

Tip	NACA 0024
-----	-----------

Semispan (panel only), m (ft)	1.09 (3.56)
-------------------------------	-------------

Area (panels only), m <sup>2</sup> (ft <sup>2</sup> )	1.63 (17.6)
---	-------------

## Chord:

Root, m (ft)	0.88 (2.89)
--------------	-------------

Tip, m (ft)	0.62 (2.04)
-------------	-------------

Incidence angle (chord line), deg	14.0
-----------------------------------	------

Leading-edge sweep, deg	15.2
-------------------------	------

Dihedral angle, deg	0.0
---------------------	-----

## Horizontal tail:

Airfoil	inverted Clark Y
---------	------------------

Semispan (panel only), m (ft)	0.78 (2.54)
-------------------------------	-------------

Area (panels only), m <sup>2</sup> (ft <sup>2</sup> )	0.95 (10.2)
---	-------------

## Chord:

Root, m (ft)	0.75 (2.45)
--------------	-------------

Tip, m (ft)	0.54 (1.78)
-------------	-------------

Leading-edge sweep, deg	19.9
-------------------------	------

Dihedral angle, deg	0.0
---------------------	-----

## Vertical tail:

## Airfoil

Root	cambered, 14% thick
------	---------------------

Tip	cambered, 15% thick
-----	---------------------

Span (above tail boom), m (ft)	1.64 (5.38)
--------------------------------	-------------

Area, m <sup>2</sup> (ft <sup>2</sup> )	1.73 (18.6)
---	-------------

## Chord:

Root, m (ft)	1.42 (4.67)
--------------	-------------

Tip, m (ft)	0.69 (2.25)
-------------	-------------

Leading-edge sweep, deg	50.0
-------------------------	------

Twist, deg	nonlinear
------------	-----------

TABLE I.- Concluded

## Main rotor:

Number of blades . . . . .	2
Airfoil . . . . .	RC-SC2
Radius (R), m (ft) . . . . .	6.706 (22.0)
Chord, m (ft). . . . .	0.686 (2.25)
Taper . . . . .	1:1
Solidity . . . . .	0.0651
Twist, deg . . . . .	-10/R
Flapwise inertia, kg-m <sup>2</sup> (slug-ft <sup>2</sup> ) . . . . .	2120 (1560)
Lock number . . . . .	5.05
Nominal tip speed, m/sec (ft/sec). . . . .	227.5 (746.6)
Hub precone angle, deg . . . . .	2.75
Pitch-flap coupling, deg . . . . .	0.0
Blade pitch range at .75 R, deg . . . . .	-10.5, +39.5
Trim tab:	
Width, m (ft) . . . . .	0.191 (0.75)
Overhang length, m (ft). . . . .	0.042 (0.138)
Inboard edge . . . . .	0.761 R
Blade weight, kN (lb)* . . . . .	1.274 (286.4), 1.255 (282.1)
Blade static center of gravity*	
Chordwise, c . . . . .	.244, .246
Spanwise, R . . . . .	.538, .533
Blade measured torsional natural frequency, Hz* . . . .	16.7, 17.0

## Tail rotor:

Number of blades . . . . .	2
Airfoil	
0.25 tail-rotor radius . . . . .	NACA 0018
Tip . . . . .	cambered, 8% thick
Radius, m (ft) . . . . .	1.295 (4.25)
Chord, m (ft). . . . .	0.292 (0.96)
Taper . . . . .	1:1
Solidity . . . . .	0.144
Twist, deg . . . . .	0.0
Equivalent root cut-out. . . . .	0.35 R
Nominal tip speed, m/sec (ft/sec). . . . .	227.5 (746.4)
Blade pitch range, deg . . . . .	-14.7, +15.3
Hub precone angle, deg . . . . .	1
Pitch-flap coupling, deg . . . . .	30

\*Characteristics given for instrumented and uninstrumented blade, respectively.



TABLE II. - COORDINATES OF RC-SC2 AIRFOIL

$x/c$	$y_u/c$	$y_l/c$
0.000	0.00000	0.0000
.002	.00816	
.007	.0158	-.0157
.012	.0194	-.0189
.025	.0254	-.0238
.037	.0295	-.0271
.050	.0328	-.0297
.075	.0377	-.0334
.100	.0414	-.0362
.125	.0443	-.0383
.150	.0466	-.0399
.175	.0484	-.0412
.200	.0500	-.0423
.250	.0522	-.0437
.300	.0537	-.0446
.350	.0546	-.0450
.400	.0550	-.0447
.450	.0547	-.0439
.500	.0538	-.0426
.550	.0523	-.0407
.600	.0501	-.0383
.625	.0488	-.0369
.650	.0473	-.0354
.675	.0457	-.0338
.700	.0439	-.0320
.725	.0418	-.0300
.750	.0396	-.0280
.775	.0371	-.0258
.800	.0344	-.0234
.825	.0314	-.0210
.850	.0281	-.0184
.875	.0245	-.0156
.900	.0206	-.0128
.925	.0162	-.0098
.950	.0113	-.0067
.975	.0067	-.0034
1.000	.0021	0.0000

TABLE III.- PADS-PCM DATA SYSTEM CHARACTERISTICS

Parameter	System Accuracy (a)	Digital Channel Precision	Filter Frequency (b)
Aerodynamic Flight State:			
dynamic pressure - regular	70 Pa	14 Pa	1 Hz
- sensitive	14 Pa	3 Pa	_____
static pressure - regular	500 Pa	200 Pa	_____
- sensitive	70 Pa	40 Pa	_____
angle of attack	.1°	.18°	10 Hz
angle of sideslip	.1°	.18°	10 Hz
total temperature	.06	.1	_____
Inertial Flight State:			
roll attitude	.5°	.36°	_____
pitch attitude	.5°	.18°	_____
heading	3.0°	.72°	_____
angular rates	.01 rad/sec	.044 rad/sec	10 Hz
longitudinal acceleration	.001 g	.004 g	10 Hz
lateral acceleration	.001 g	.003 g	10 Hz
normal acceleration	.005 g	.009 g	10 Hz
Control Positions:			
lateral servo	.1°	.04°	10 Hz
longitudinal servo	.1°	.07°	10 Hz
collective servo	.1°	.05°	10 Hz
horizontal fin	.1°	.02°	10 Hz
pedal position	.16°	.07°	10 Hz
tail-rotor collective	.1°	.07°	10 Hz
Rotor/Engine Parameters:			
main-rotor speed - regular	.5%	.23%	_____
- sensitive	.1%	.05%	_____
main-rotor azimuth	1°	22.5°	_____
engine torque pressure	3 kPa	1.3 kPa	_____
fuel quantity	60 N	40 N	_____

Notes: a - accuracy of analog signal before digitization

b - frequency at 3 db roll-off for constant delay, 4 pole Bessel Filters

TABLE IV. - CHARACTERISTICS OF BLADE PRESSURE-DATA SYSTEM

SURFACE	ORIFICE LOCATION		PRECISION* KPa	F <sub>3db</sub> Hz
	$\frac{x}{c}$	$\frac{y}{c}$		
Upper	.02	.0233	.207	130
	.10	.0414	.386	112
	.20	.0500	.326	80
	.35	.0546	.305	61
	.50	.0538	.328	173
	.70	.0439	.420	164
	.80	.0349	.347	188
	.90	.0206	.286	178
Lower	.02	-.0222	.460	132
	.10	-.0362	.386	128
	.20	-.0423	.304	182
	.50	-.0426	.268	160
	.90	-.0128	.313	188

\*NOTE: Increment per unit digital input, approximately  
1/8 of maximum possible error band width

TABLE V. - CATALOG OF FLIGHT TEST-POINT CONDITIONS

FLIGHT CONDITION	HOVER	LEVEL FLIGHT			
Flight no. - Run no.	96-2	96-3	94-3	96-9	94-7
$\mu$	0.0	0.147	0.168	0.246	0.247
V, knots	0.0	65.1	73.8	108.9	108.5
$M_h$	0.65	0.66	0.66	0.66	0.66
$C_L$	0.0043	0.0043	0.0051	0.0043	0.0052
$n_z$ , g units	1.02	1.03	1.02	1.02	1.04
$\dot{h}$ , m/min	--	-39.	1.	-43.	29.
$\alpha_f$ , degrees	--	-1.0	-1.5	-2.9	-3.2
$\phi_f$ , degrees	0.4	0.4	0.1	-0.5	-0.4
$\theta_f$ , degrees	-0.3	-2.1	-1.5	-3.6	-2.7
$p_f$ , rad/sec	0.01	-0.01	0.00	0.00	0.01
$q_f$ , rad/sec	0.00	0.00	0.00	0.01	0.00
$r_f$ , rad/sec	0.02	0.00	-0.01	-0.01	0.00
$\dot{p}_f$ , rad/sec <sup>2</sup>	0.04	0.01	0.03	-0.02	0.01
$\dot{q}_f$ , rad/sec <sup>2</sup>	0.02	0.01	0.00	0.00	0.01
$\dot{r}_f$ , rad/sec <sup>2</sup>	-0.06	0.00	-0.01	0.01	-0.04
$C_Q$	0.00031	0.00016	0.00019	0.00022	0.00025
$A_{0s}$ , degrees	10.4	8.1	8.8	9.8	10.3
$A_{1s}$ , degrees	-2.0	-1.0	-0.9	-0.2	-0.8
$B_{1s}$ , degrees	-1.0	1.8	2.6	5.1	5.2
$a_{1s}$ , degrees	1.3	-0.2	-0.4	-1.6	-0.9
$b_{1s}$ , degrees	-1.4	0.2	0.3	-0.2	-0.2
$\Omega$ , rad/sec	33.59	33.95	33.72	33.99	33.65
a, m/sec	344.7	343.9	341.0	344.0	341.0

TABLE V. - (CONTINUED)

FLIGHT CONDITION	LEVEL FLIGHT			CLIMB	DESCENT
Flight no. - Run no.	94-9	93-10	94-11	92-39	92-40
$\mu$	0.296	0.332	0.345	0.231	0.249
V, knots	129.5	145.0	150.6	101.3	109.5
$M_h$ , knots	0.66	0.65	0.66	0.66	0.66
$C_L'$	0.0052	0.0043	0.0053	0.0045	0.00049
$n_z$ , g units	1.04	1.00	1.05	1.02	1.13
$\dot{h}$ , m/min	20.	128.	44.	847.	-676.
$\alpha_f$ , degrees	-3.8	-6.7	-6.1	-13.3	10.7
$\phi_f$ , degrees	0.3	-1.8	-1.5	3.0	12.7
$\theta_f$ , degrees	-3.5	-5.0	-5.5	2.5	-0.6
$p_f$ , rad/sec	-0.01	0.01	0.01	0.01	0.00
$q_f$ , rad/sec	0.00	0.01	0.01	0.00	0.03
$r_f$ , rad/sec	0.00	0.01	0.01	0.01	0.02
$\dot{p}_f$ , rad/sec <sup>2</sup>	0.01	0.00	-0.05	-0.05	0.00
$\dot{q}_f$ , rad/sec	0.01	-0.03	-0.01	-0.02	-0.02
$\dot{r}_f$ , rad/sec <sup>2</sup>	-0.02	0.02	-0.01	-0.01	-0.01
$C_Q$	0.00030	0.00036	0.00043	0.00045	0.00001
$A_{0s}$ , degrees	11.7	12.6	14.1	13.6	4.3
$A_{1s}$ , degrees	-0.2	-1.1	-1.0	-0.8	0.8
$B_{1s}$ , degrees	7.0	8.5	9.3	7.6	2.8
$a_{1s}$ , degrees	-1.3	-2.1	-1.3	-2.7	-1.1
$b_{1s}$ , degrees	-0.4	-1.1	-1.1	-0.9	0.9
$\Omega$ , rad/sec	33.59	33.48	33.46	33.68	33.73
a, m/sec	341.1	344.4	341.1	344.0	343.7

TABLE V. - (CONCLUDED)

FLIGHT CONDITION	RIGHT TURN	LEFT TURN	PULL-UP
Flight no. - Run no.	95-17	95-14	92-27
$\mu$	0.241	0.244	0.243
V, knots	108.6	109.7	108.7
$M_h$	0.68	0.68	0.67
$C_L'$	0.0072	0.0070	0.0070
$n_z$ , g units	1.61	1.56	1.64
$\dot{h}$ , m/min	-541.	-754.	-432.
$\alpha_f$ , degrees	3.1	3.8	4.6
$\phi_f$ , degrees	55.5	-66.3	0.9
$\theta_f$ , degrees	-6.9	-7.6	-2.8
$p_f$ , rad/sec	0.02	-0.02	0.01
$q_f$ , rad/sec	0.16	0.17	0.13
$r_f$ , rad/sec	0.13	-0.17	-0.03
$\dot{p}_f$ , rad/sec <sup>2</sup>	0.09	0.21	-0.06
$\dot{q}_f$ , rad/sec <sup>2</sup>	-0.02	-0.07	-0.02
$\dot{r}_f$ , rad/sec <sup>2</sup>	-0.03	-0.03	-0.01
$C_Q$	0.00016	0.00018	0.00013
$A_{0s}$ , degrees	9.9	9.7	9.0
$A_{1s}$ , degrees	-0.3	-0.9	0.0
$B_{1s}$ , degrees	3.6	3.9	3.4
$a_{1s}$ , degrees	-0.7	-1.2	-0.6
$b_{1s}$ , degrees	0.8	0.9	0.8
$\Omega$ , rad/sec	34.62	34.47	34.32
a, m/sec	339.7	339.7	344.4

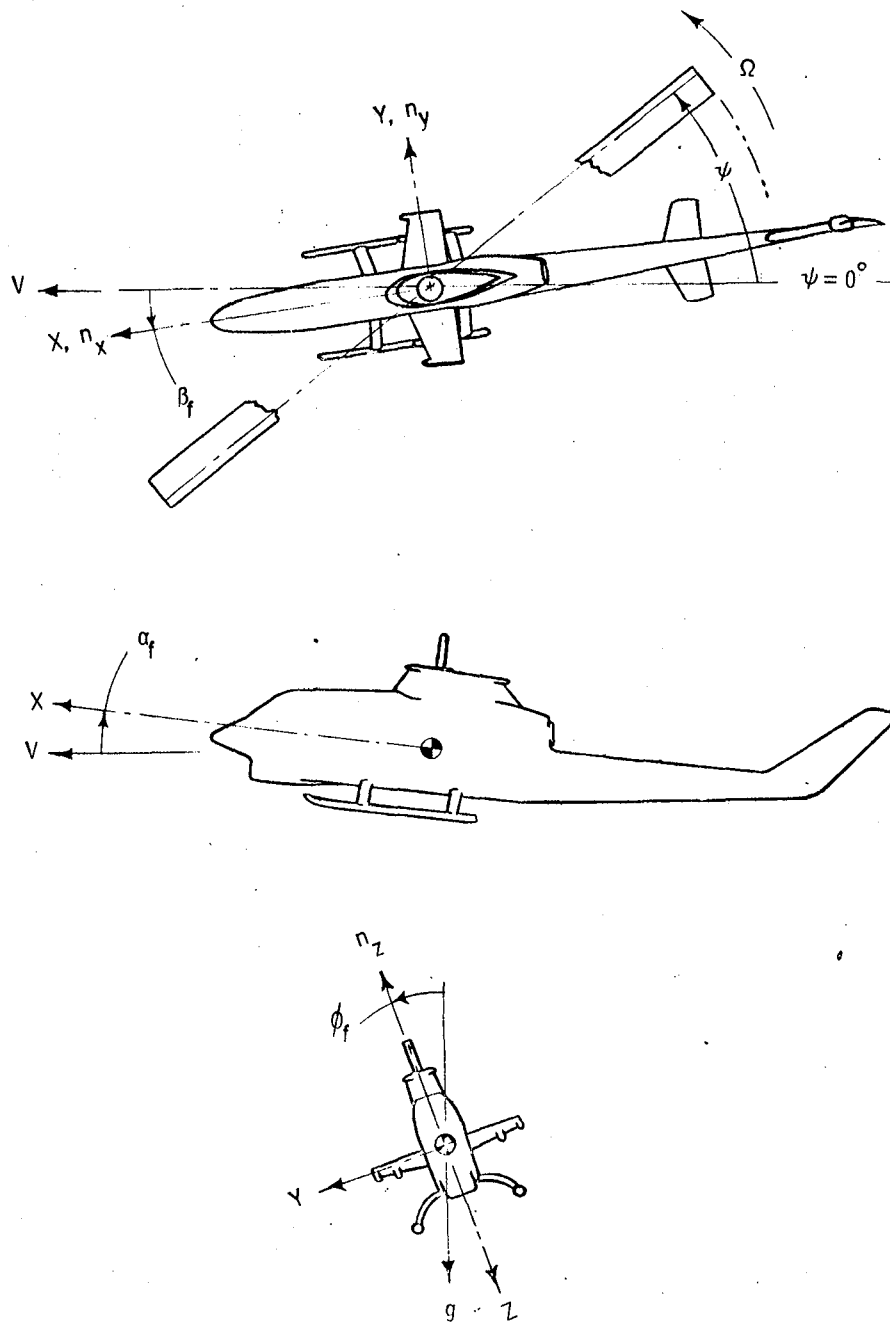


Figure 1.- Aircraft schematic and conventions used to define senses of axes, angles, and accelerations.

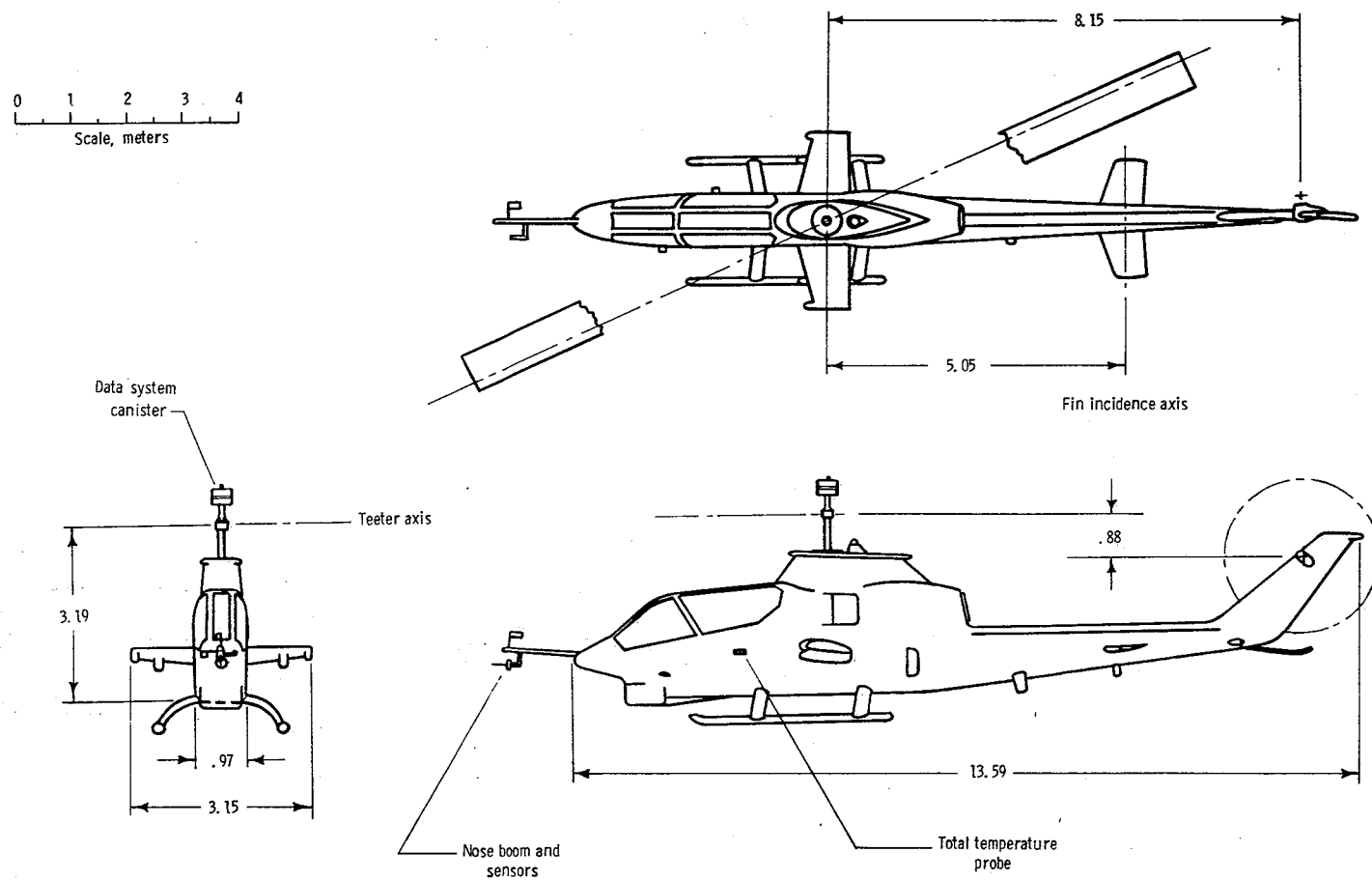
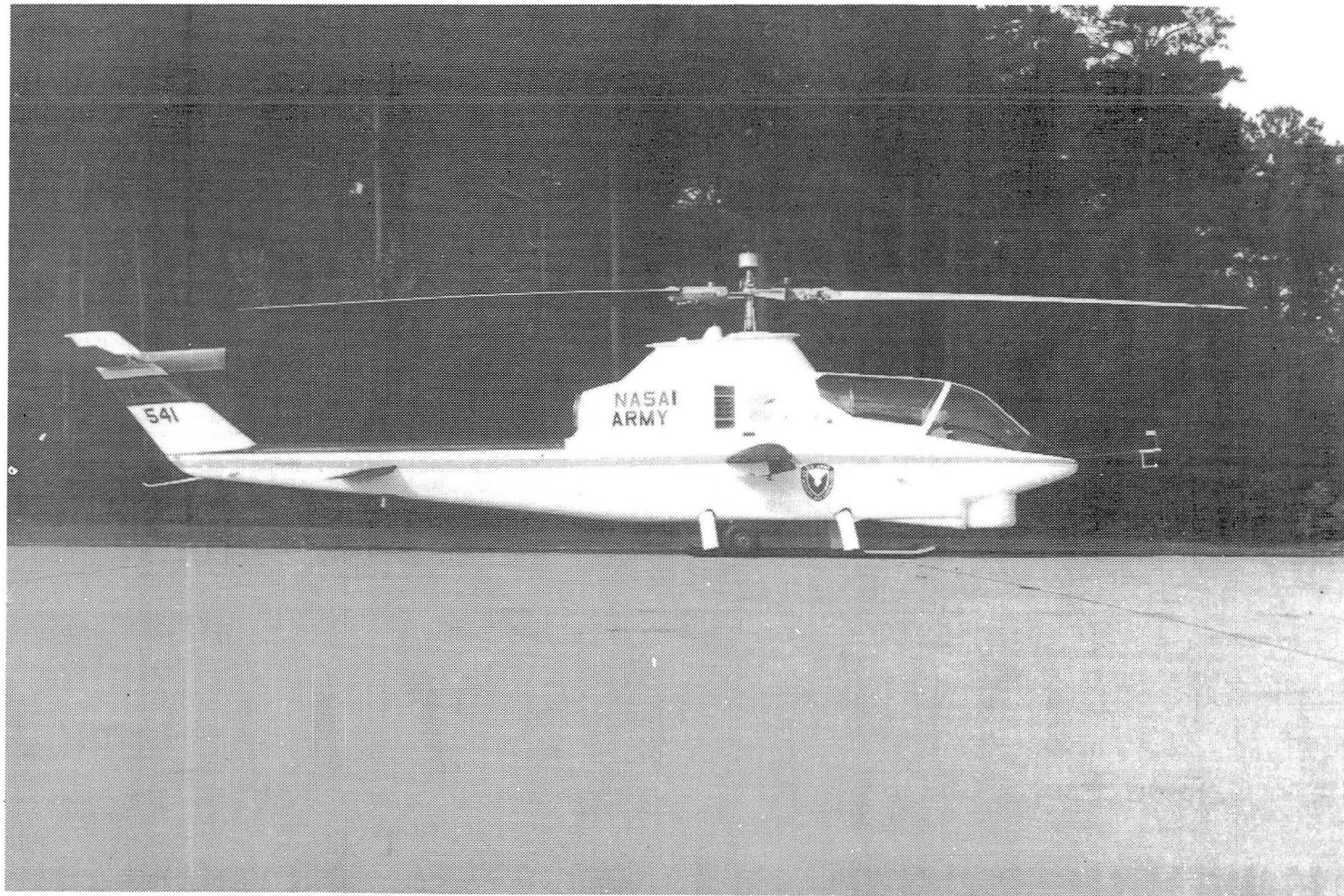


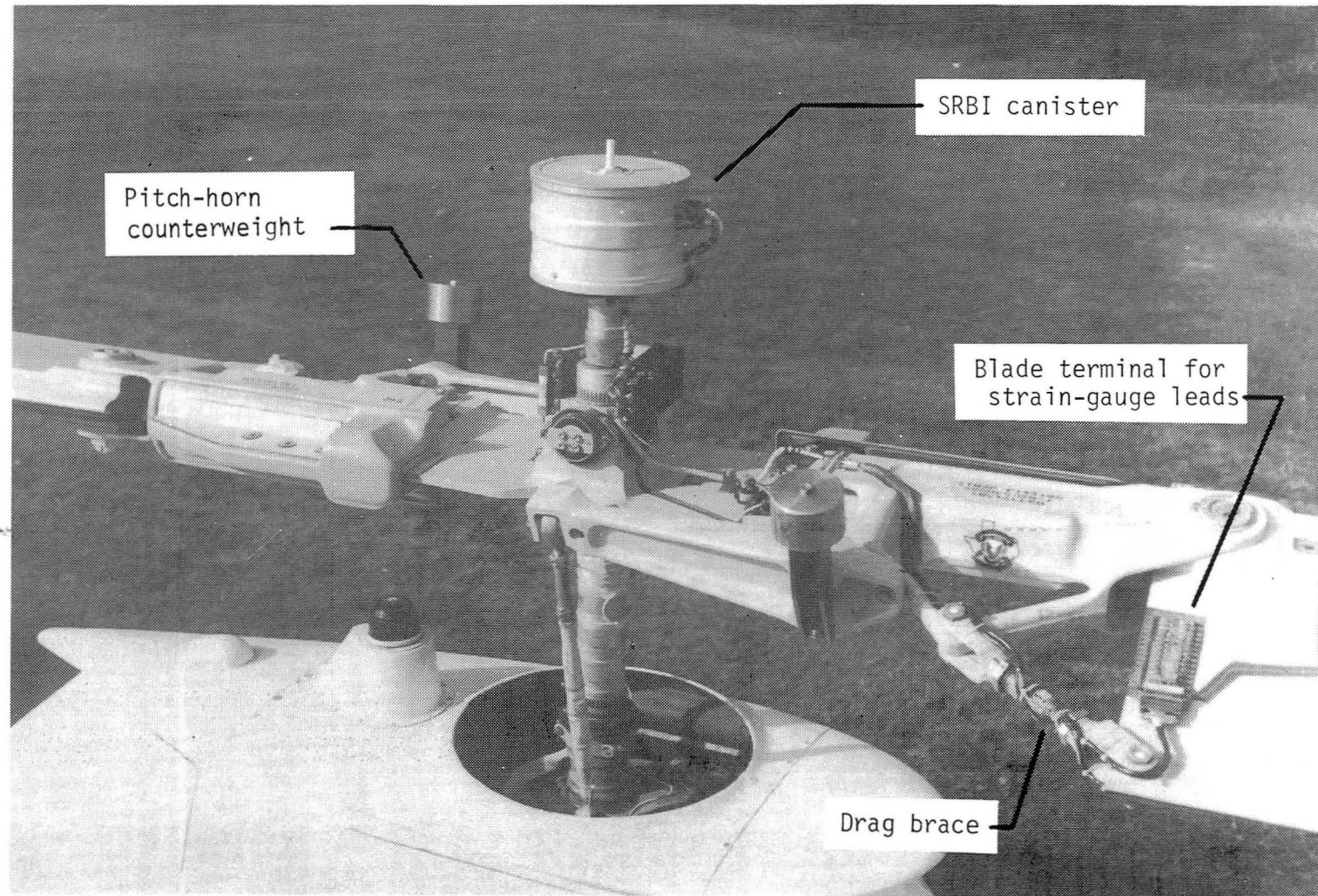
Figure 2.- Three-view scale drawing of aircraft. All dimensions are given in meters.





(a) Vehicle with RC-SC2 blades.

Figure 3. - Flight test vehicle.



(b) Rotor Hub.

Figure 3. - Concluded.

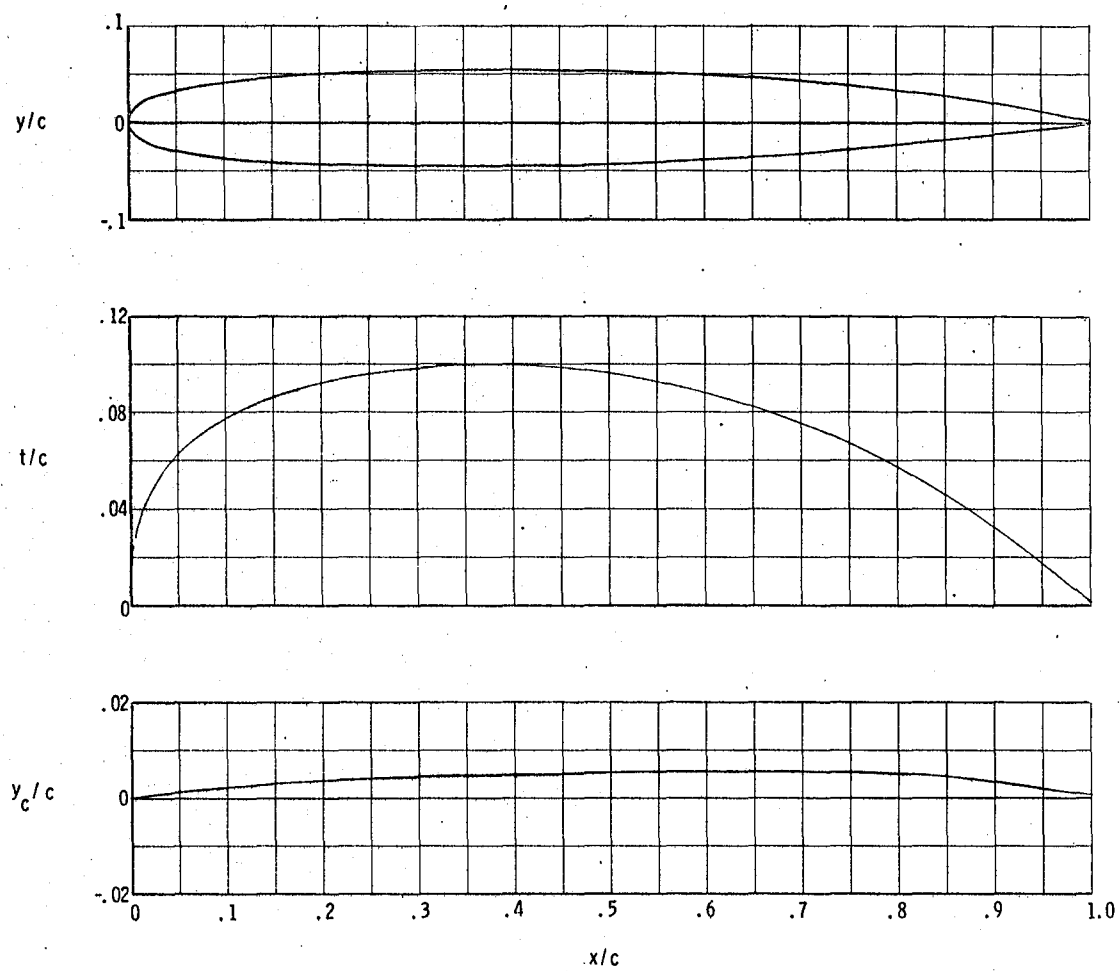


Figure 4. - Geometric characteristics of RC-SC2 airfoil.

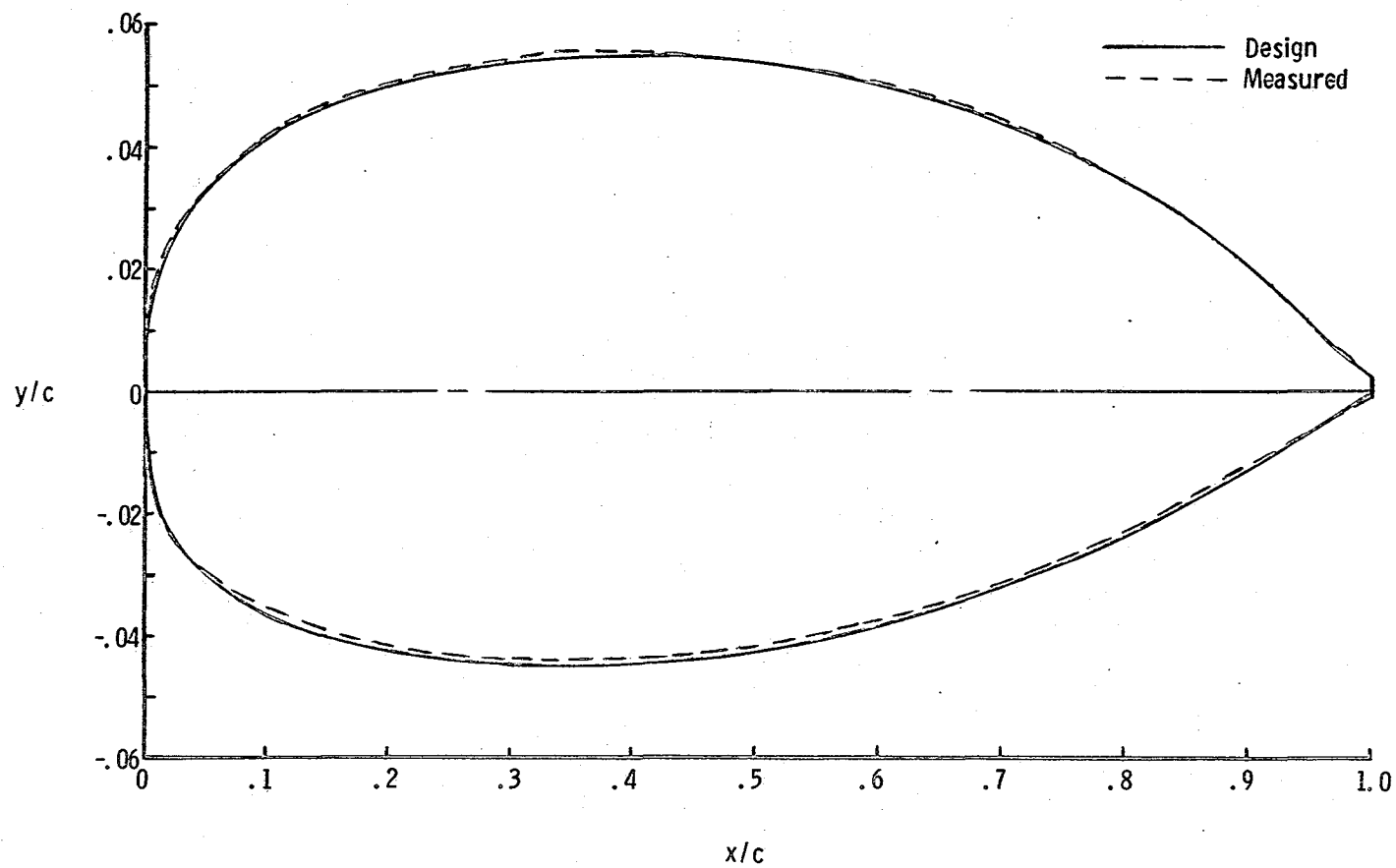


Figure 5. - Comparison of design blade-section coordinates and coordinates measured at 0.9 R.

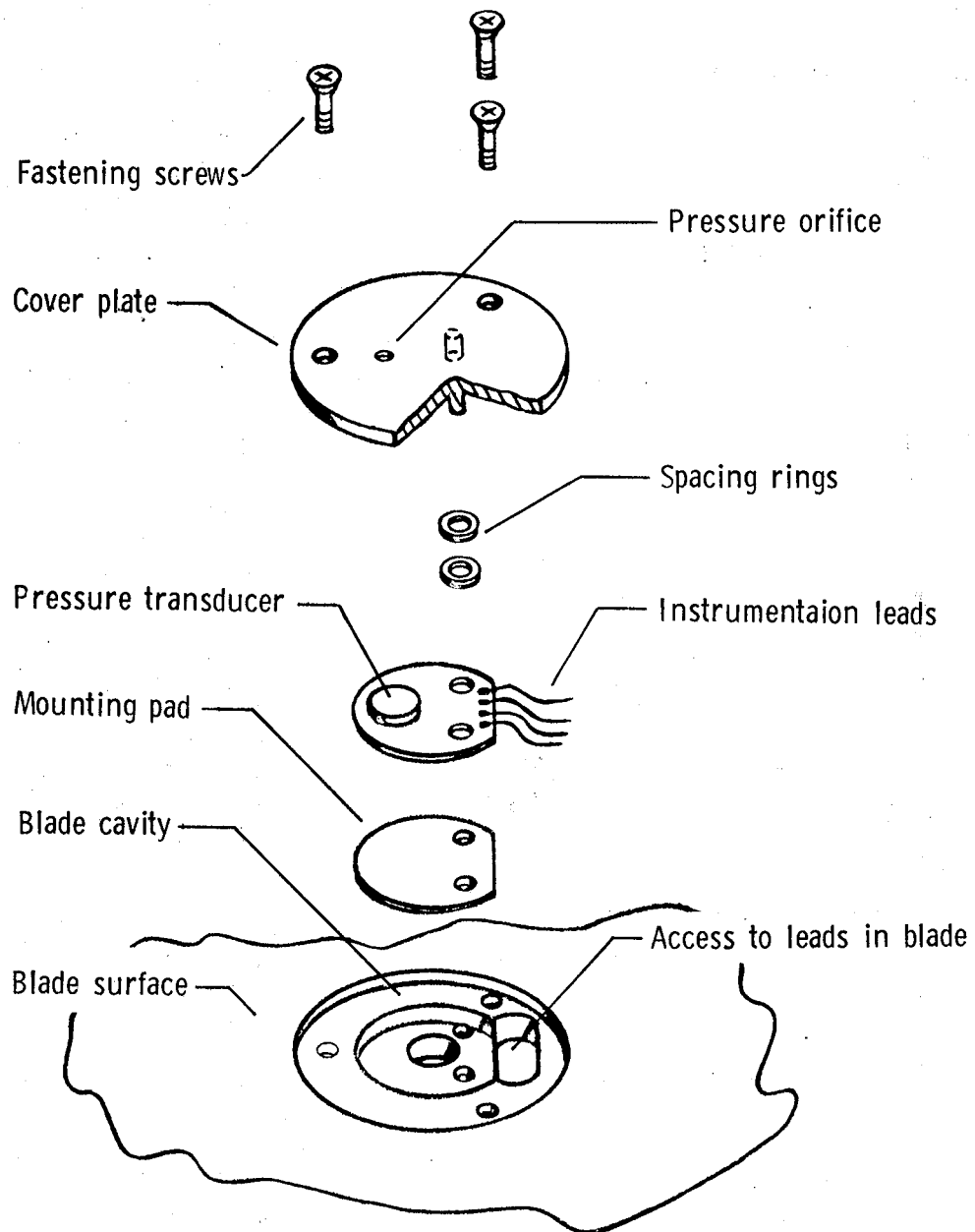
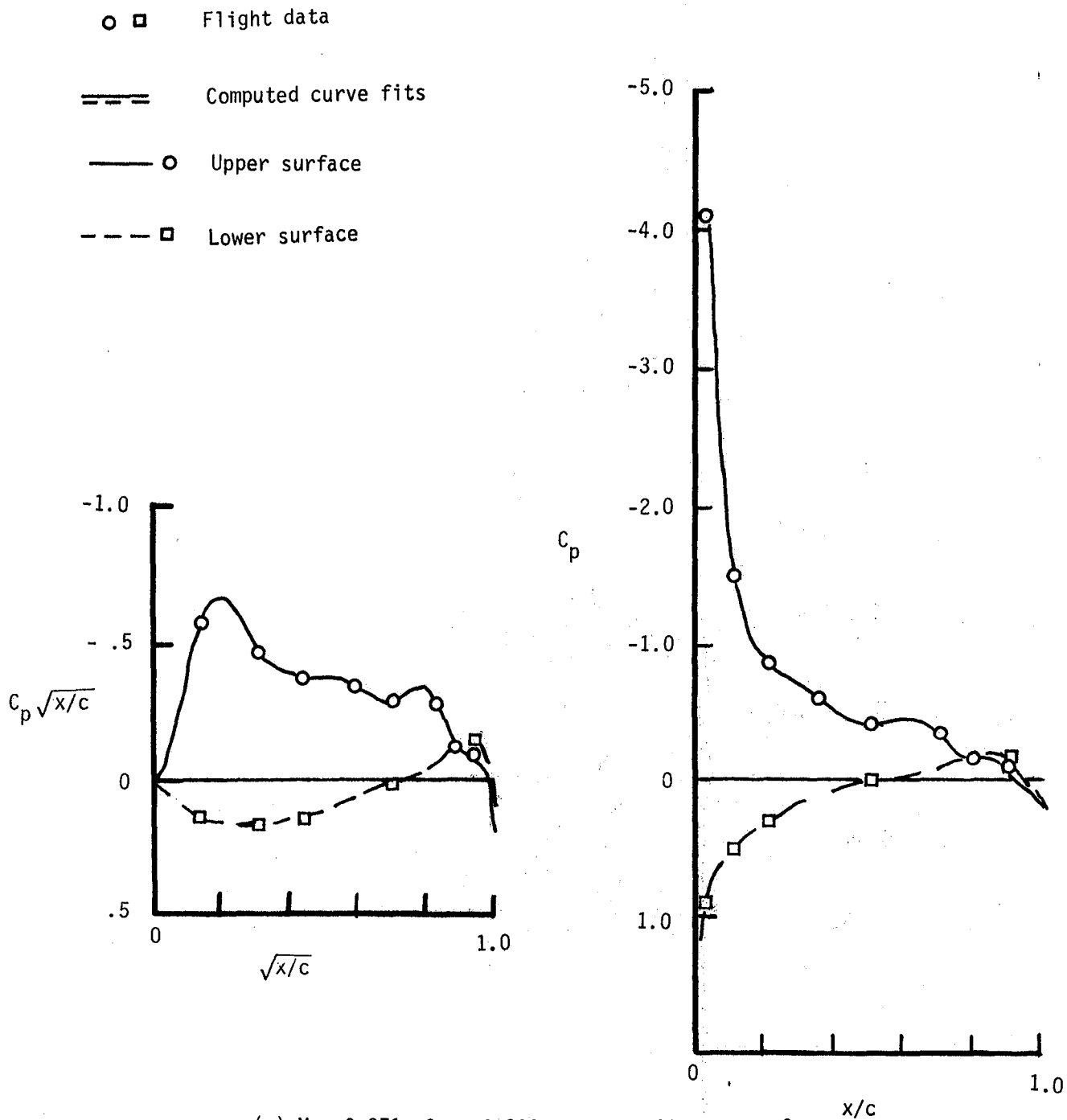
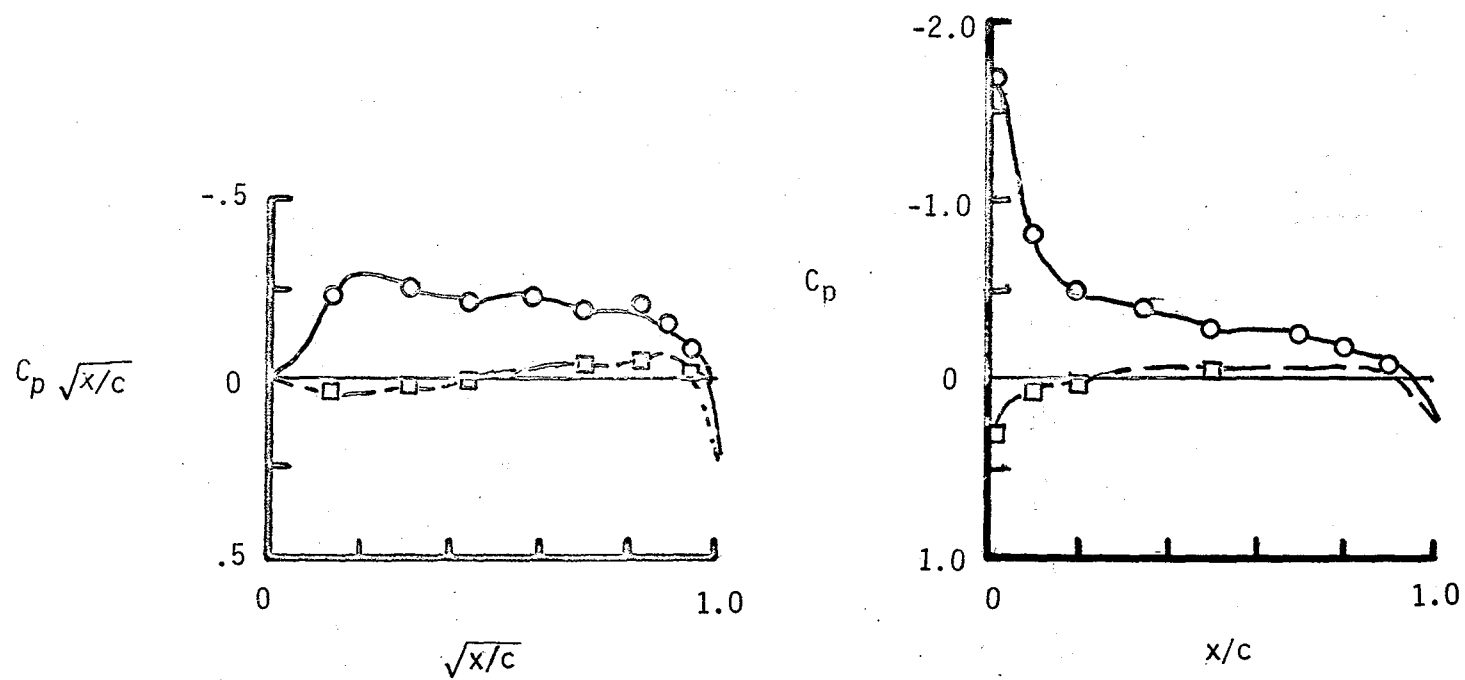
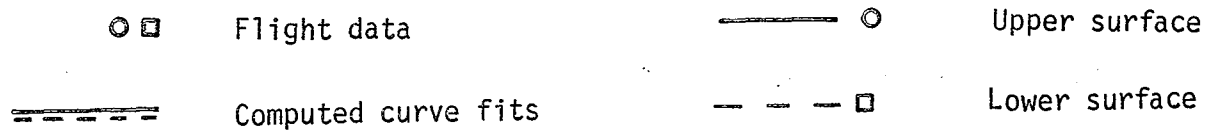


Figure 6. - Exploded-view drawing of typical pressure-transducer installation.



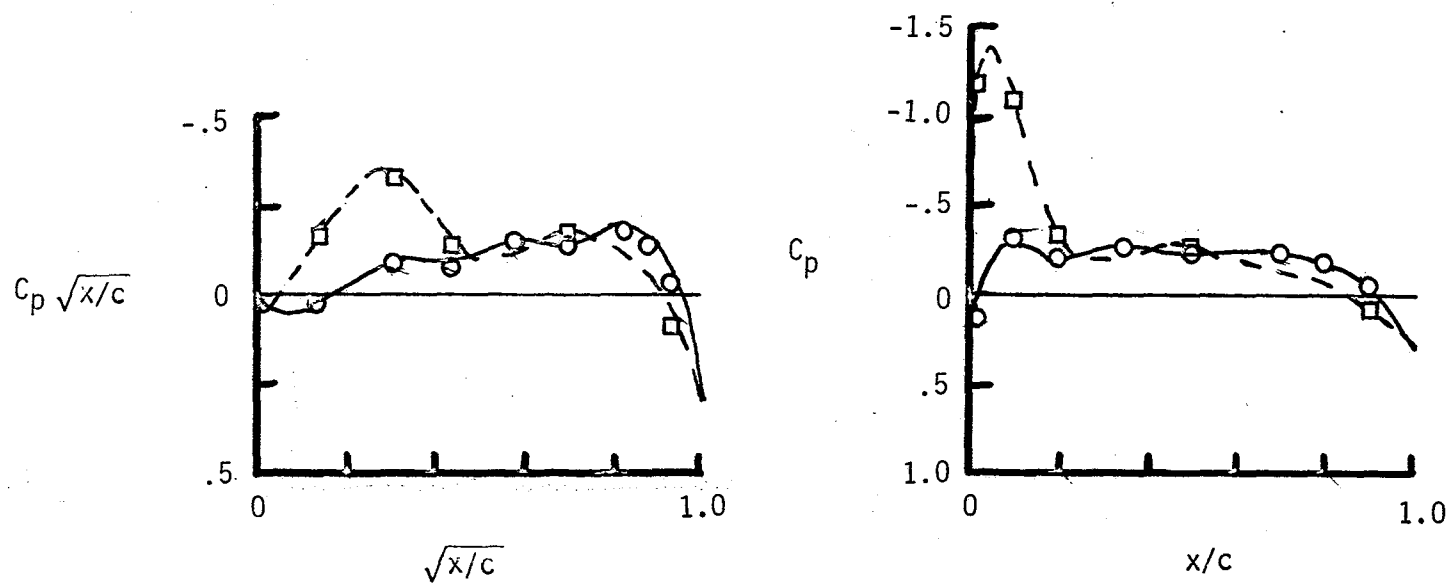
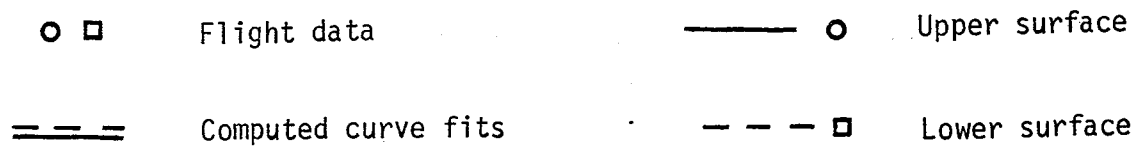
(a)  $M = 0.371$ ,  $C_n = 0.803$ ,  $C_m = 0.033$ ,  $\psi = 270^\circ$

Figure 7. - Samples of curve-fits to flight data on blade-section pressures.  $r/R=0.9$



(b)  $M = 0.588$ ,  $c_n = 0.377$ ,  $c_m = -0.001$ ,  $\psi = 90^\circ$ .

Figure 7. - Continued.



(c)  $M = 0.727$ ,  $c_n = -0.106$ ,  $c_m = -0.048$ ,  $\psi = 140^\circ$

Figure 7. - Continued.

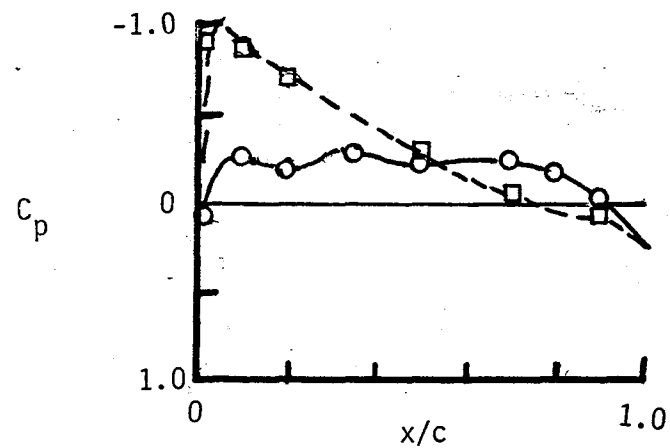
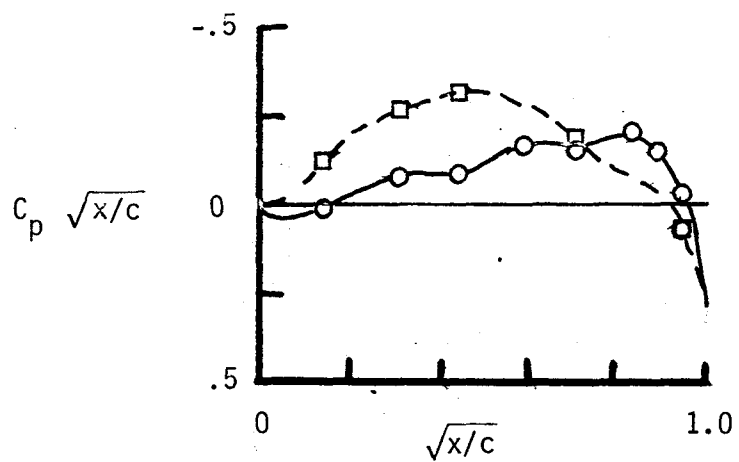


○ □ Flight data

== Computed curve fits

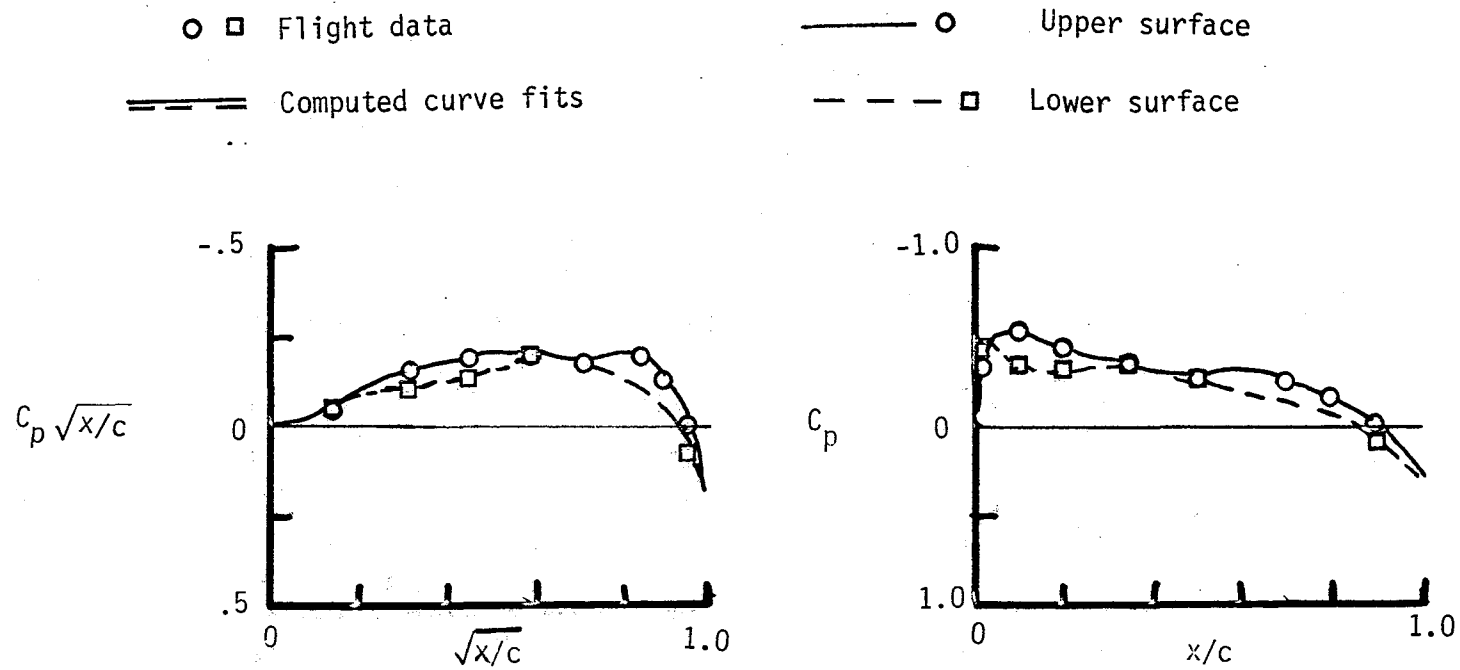
—○ Upper surface

---□ Lower surface



(d)  $M = 0.775$ ,  $c_n = -0.153$ ,  $c_m = -0.044$ ,  $\psi = 120^\circ$

Figure 7. - Continued.



(e)  $M = 0.804$ ,  $c_n = 0.056$ ,  $c_m = -0.017$ ,  $\psi = 90^\circ$

Figure 7. - Concluded.

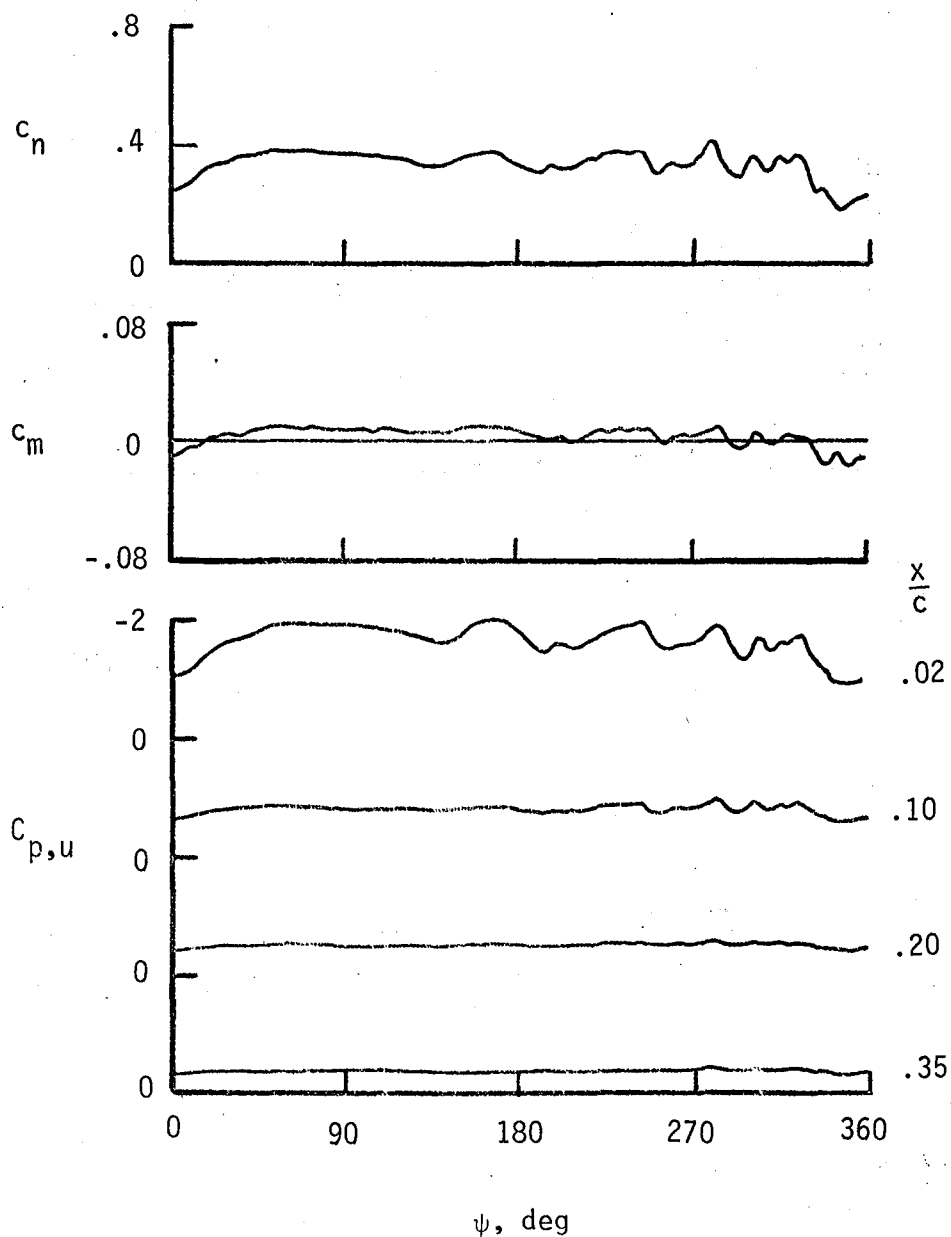


Figure 8. - Blade-section aerodynamic characteristics for one revolution in hover (flight 96, run 2).  $r/R=0.9$ ;  $h/R=1.8$ ;  $C_L'=0.0043$ .

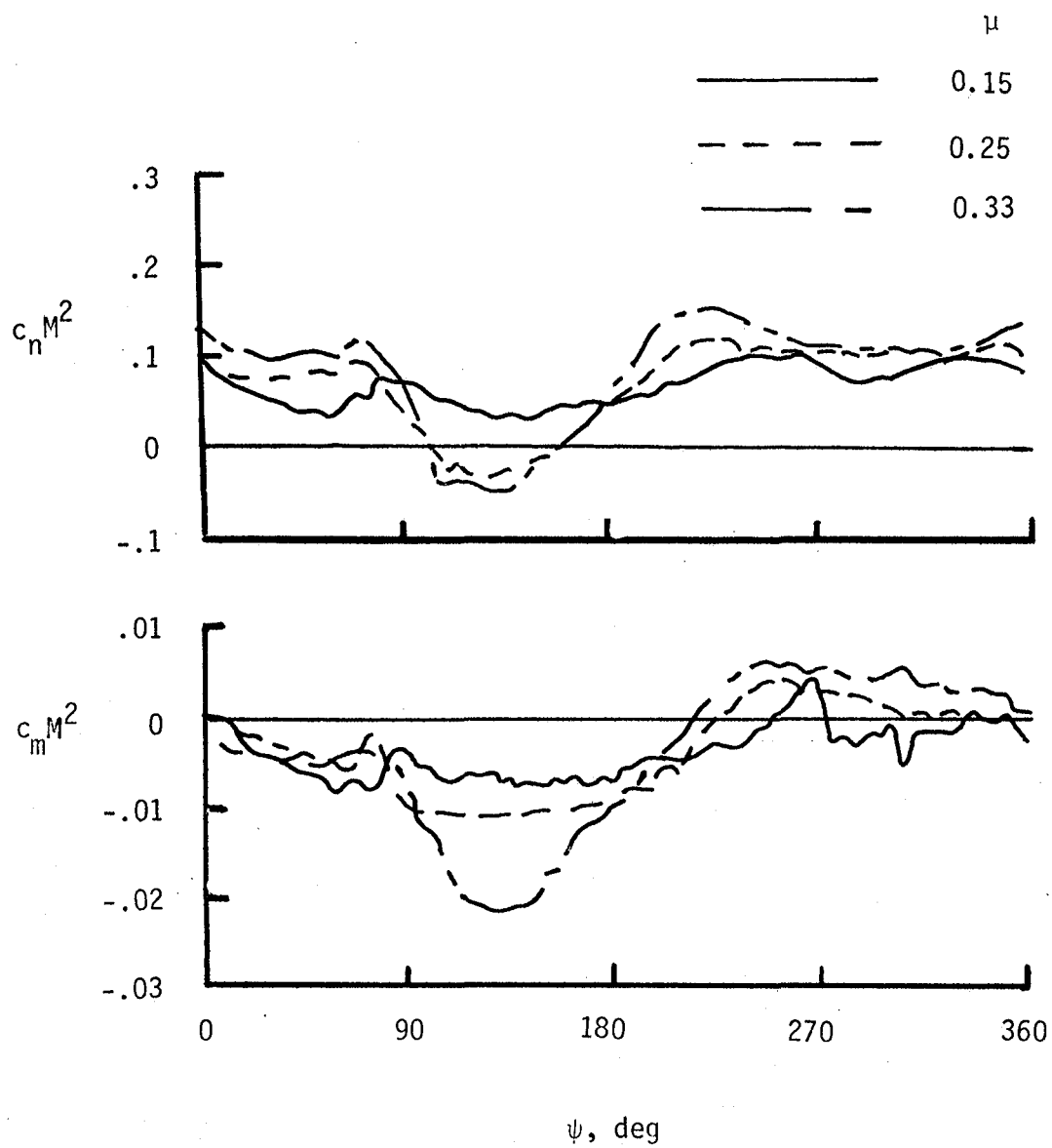


Figure 9. -Variation of blade-section aerodynamic loads with blade azimuth for level flight (flights 93 & 96).  $r/R = 0.9$ ;  $\bar{C}_L' = 0.0043$ .

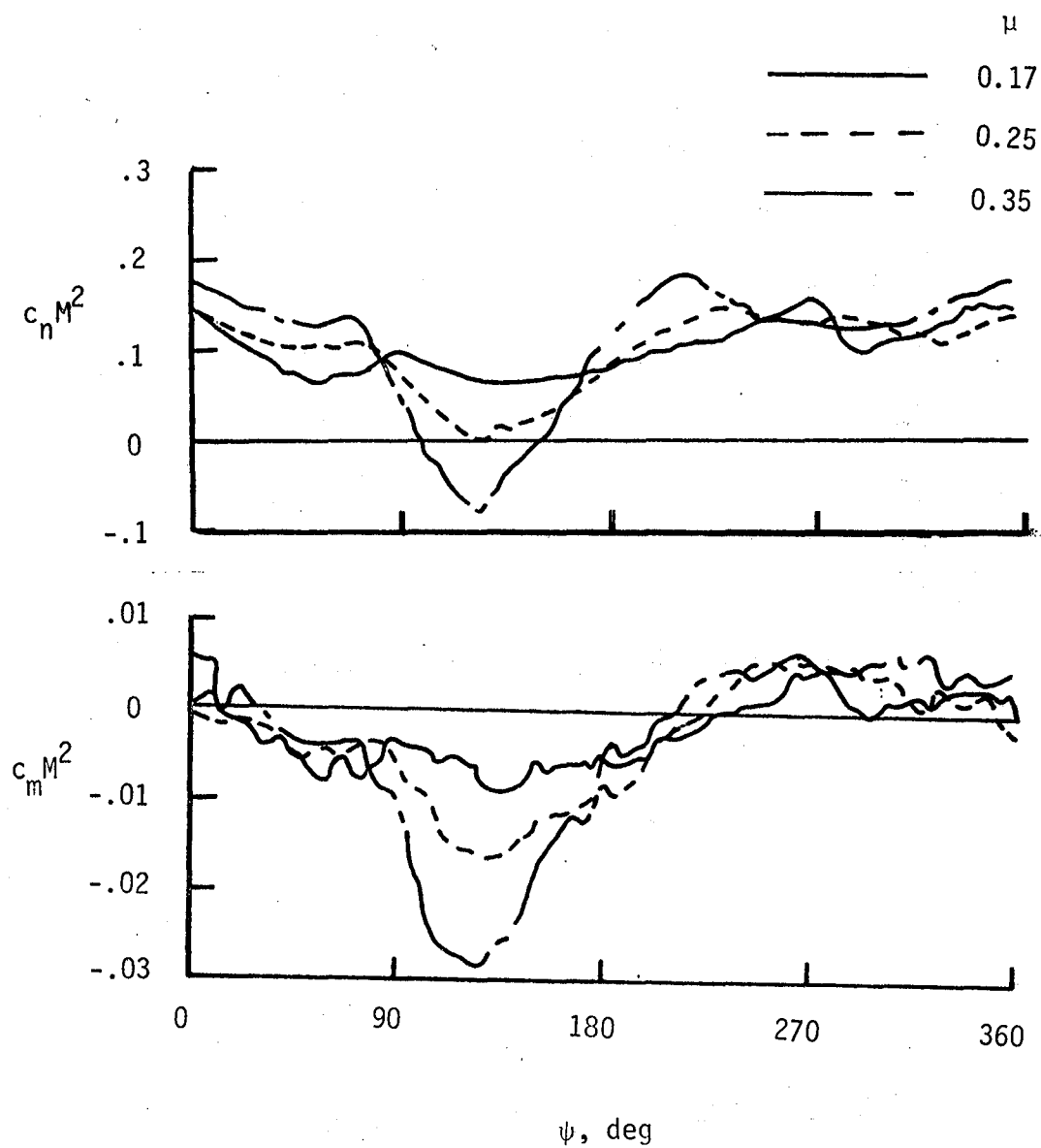
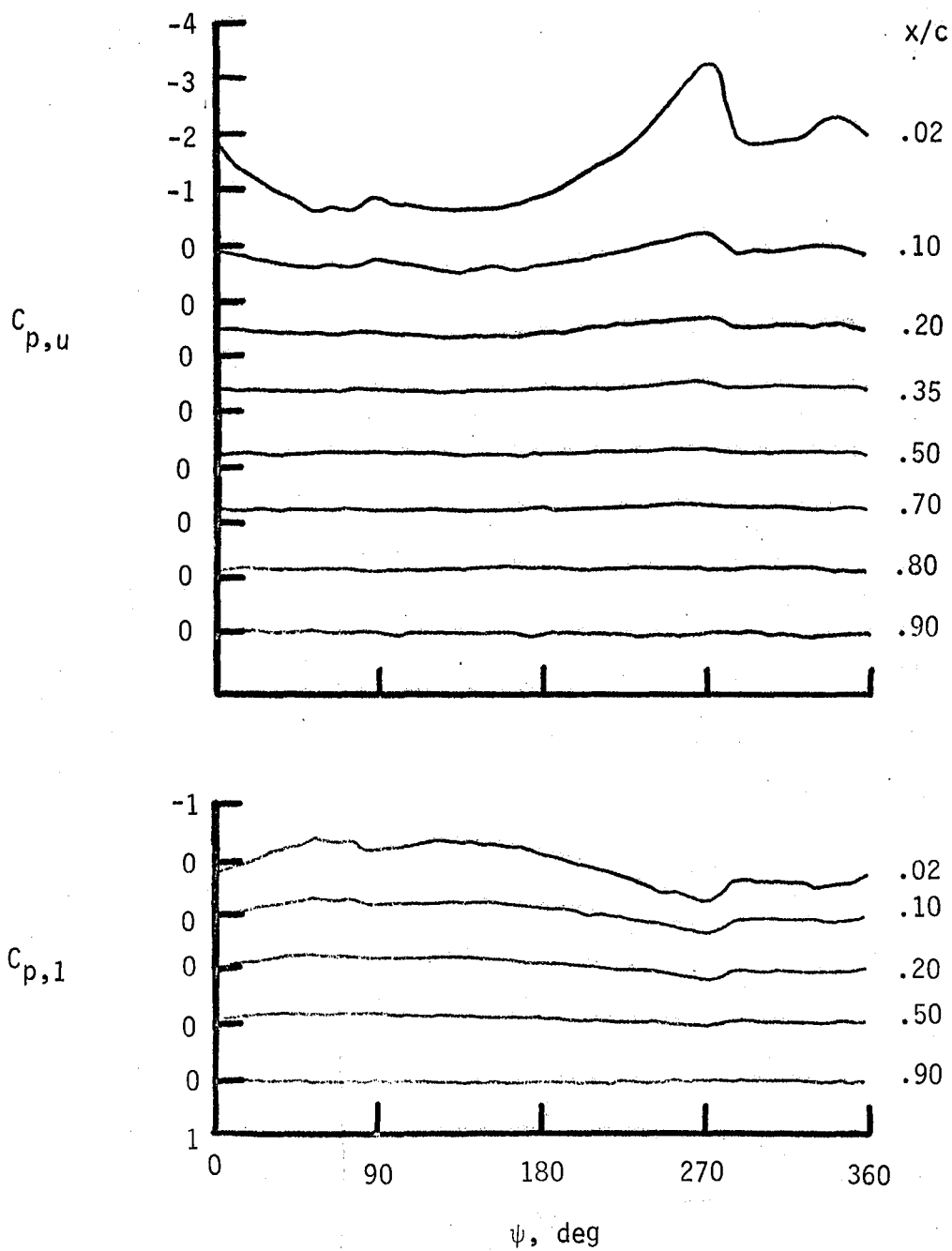
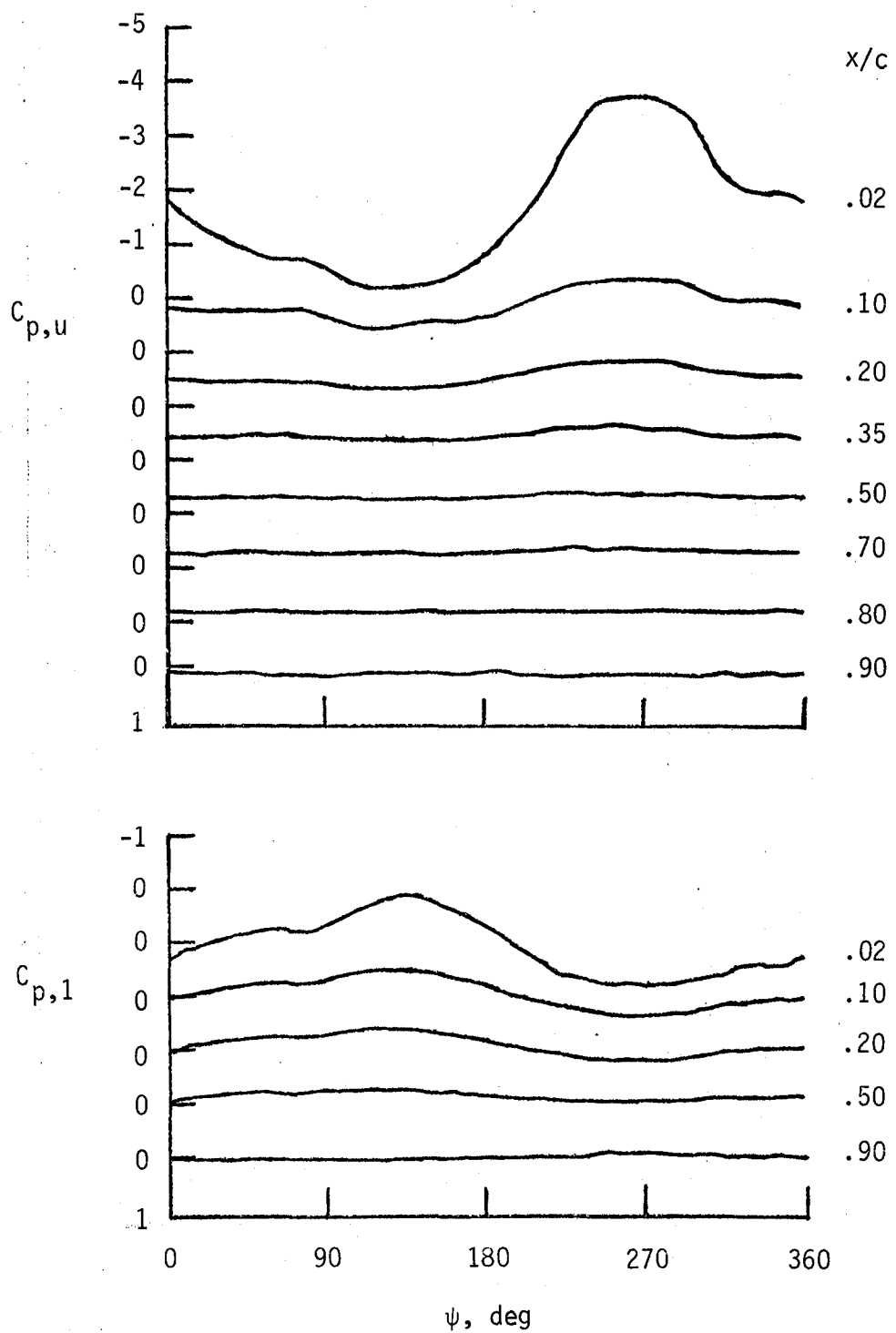


Figure 10. - Variation of blade-section aerodynamic loads with blade azimuth for level flight (flight 94).  $r/R = 0.9$ ;  $\bar{C}_L' = 0.0052$ .



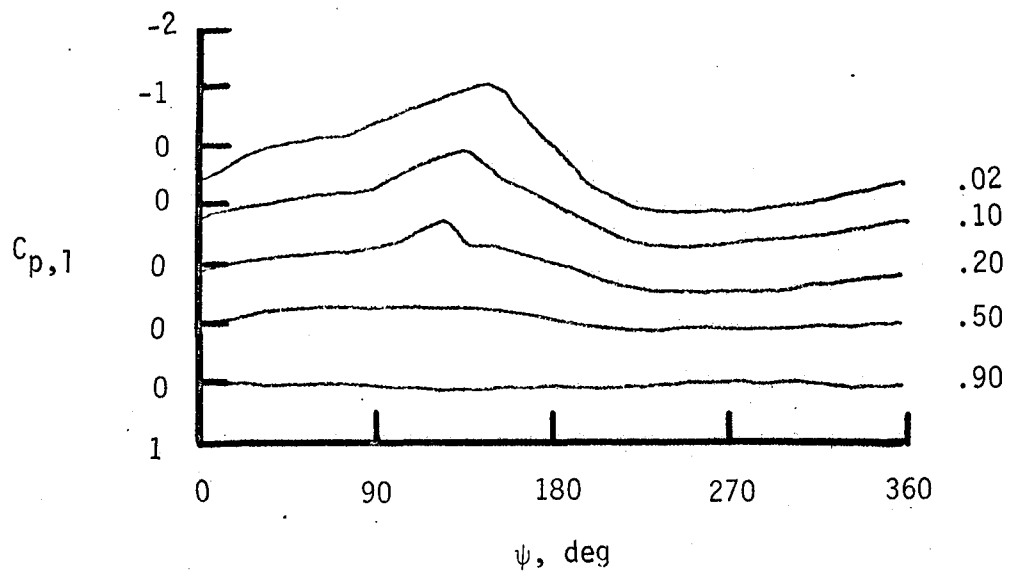
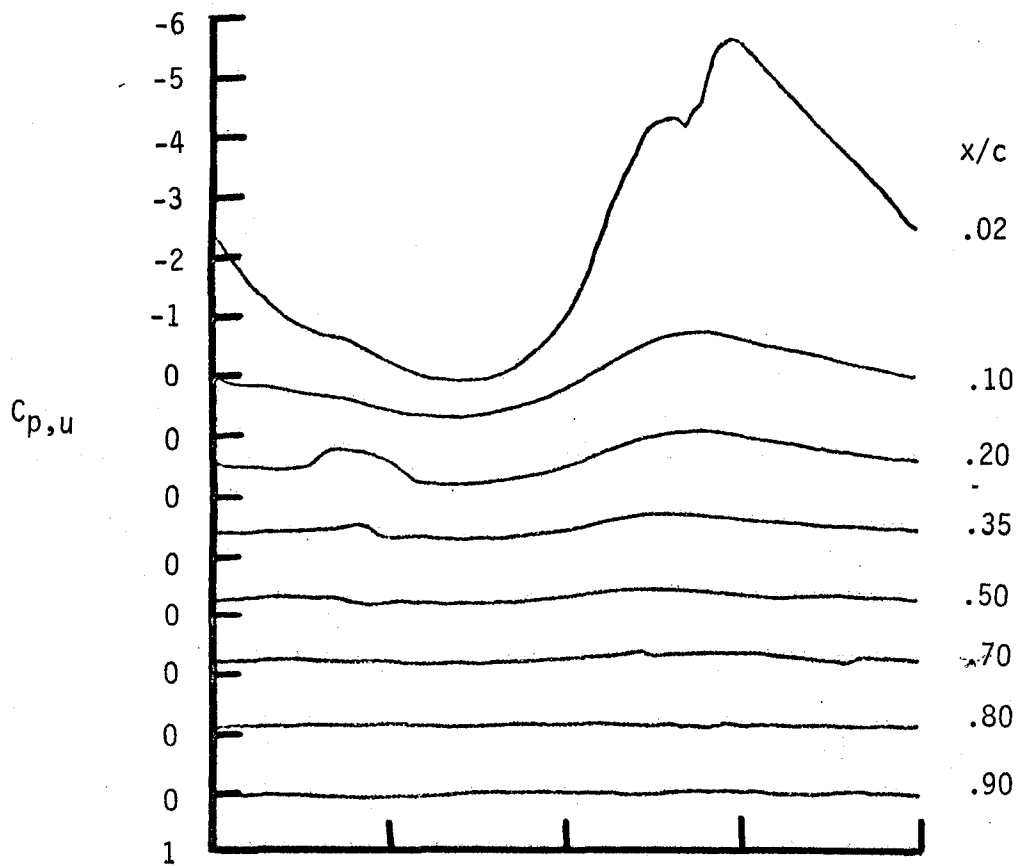
(a)  $\mu = 0.17$

Figure 11. - Pressure coefficient records for several values of tip-speed ratio in level flight (flight 94);  $r/R = 0.9$ .



(b)  $\mu = 0.25$

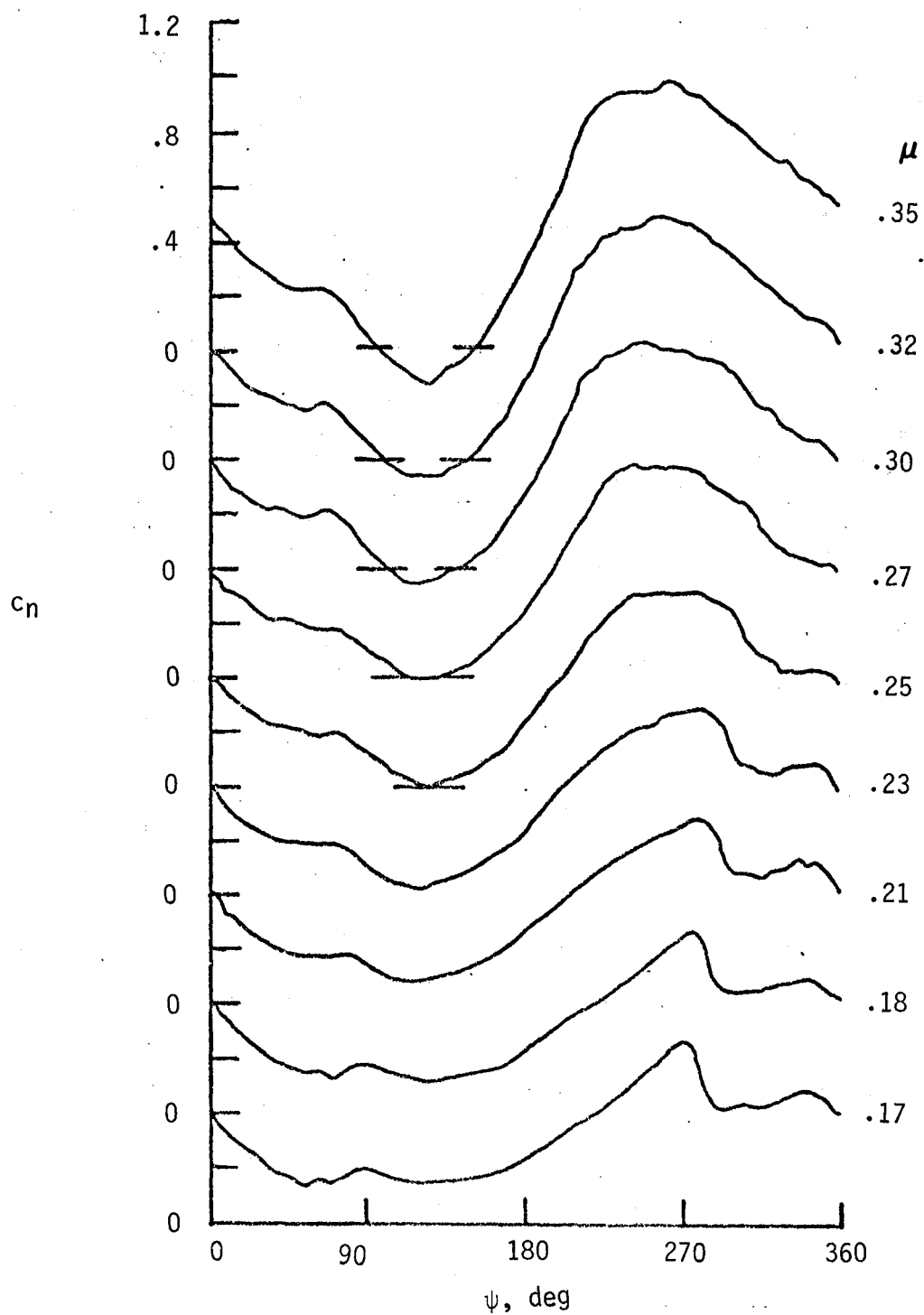
Figure 11. - Continued.



(c)  $\mu = 0.35$

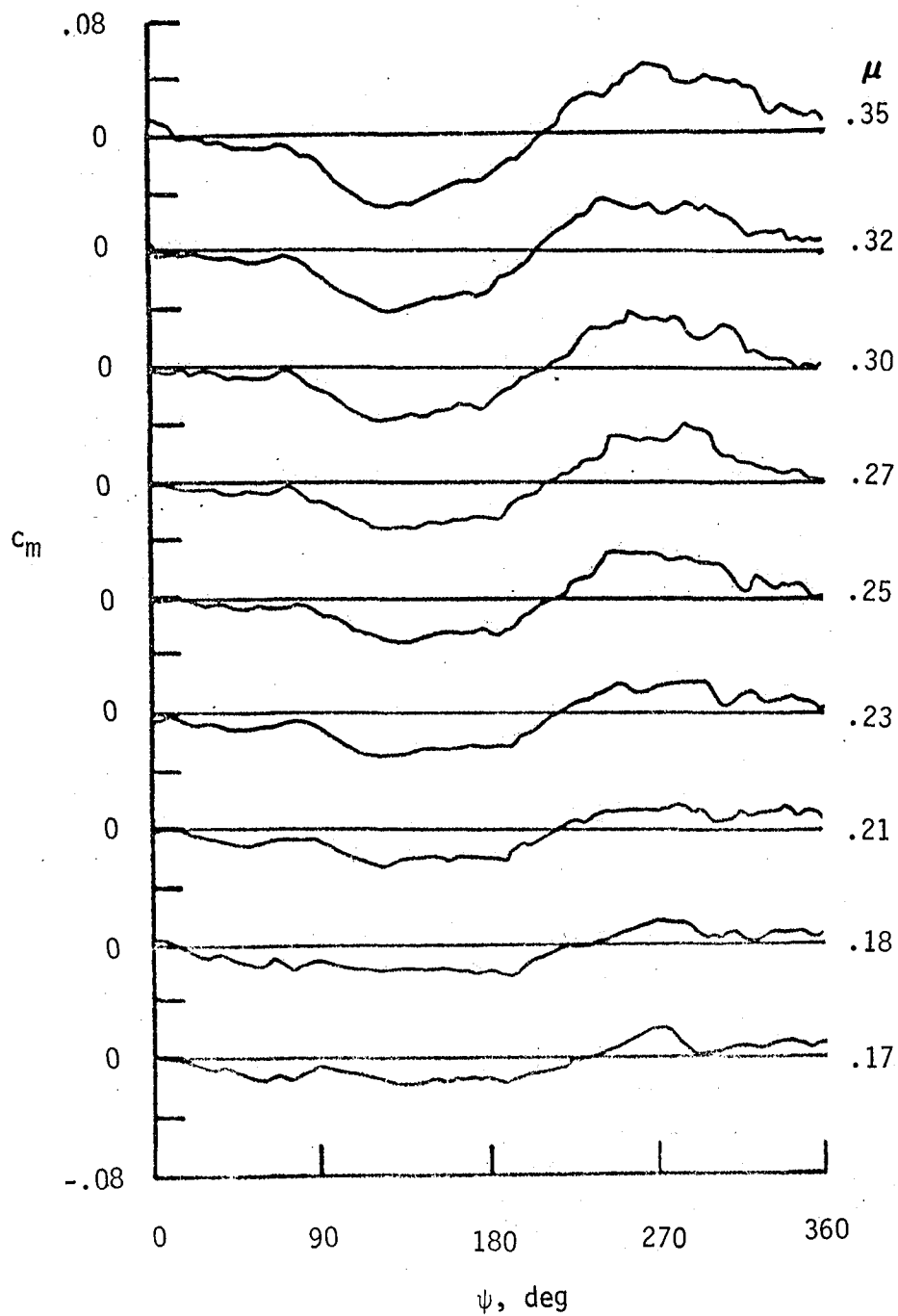
Figure 11. - Concluded.





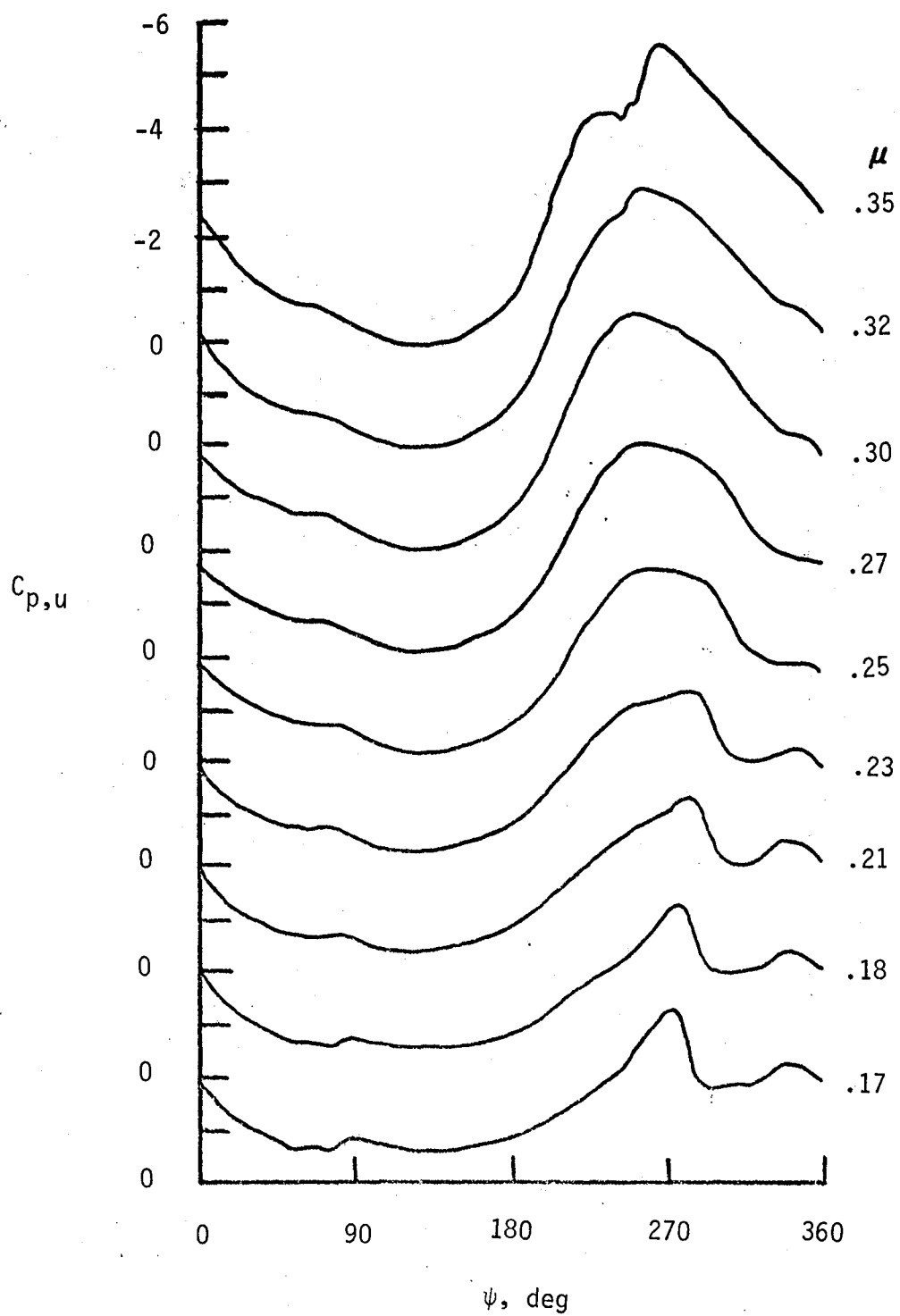
(a) Normal-force coefficient.

Figure 12. - Variation of blade-section aerodynamic characteristics with blade azimuth at a series of tip-speed ratios in level flight (flight 94);  $r/R = 0.9$ .



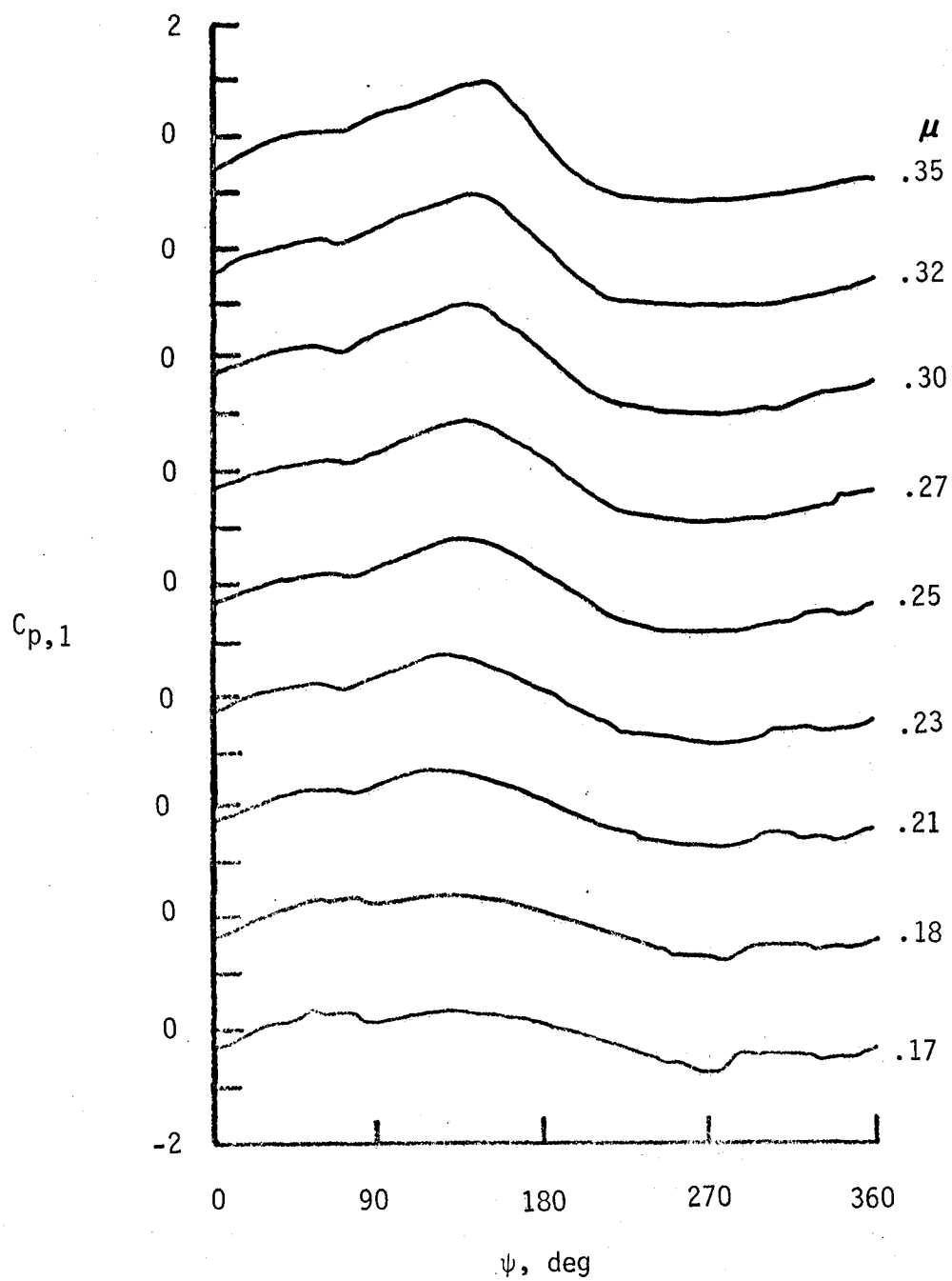
(b) Pitching-moment coefficient.

Figure 12. - Continued.



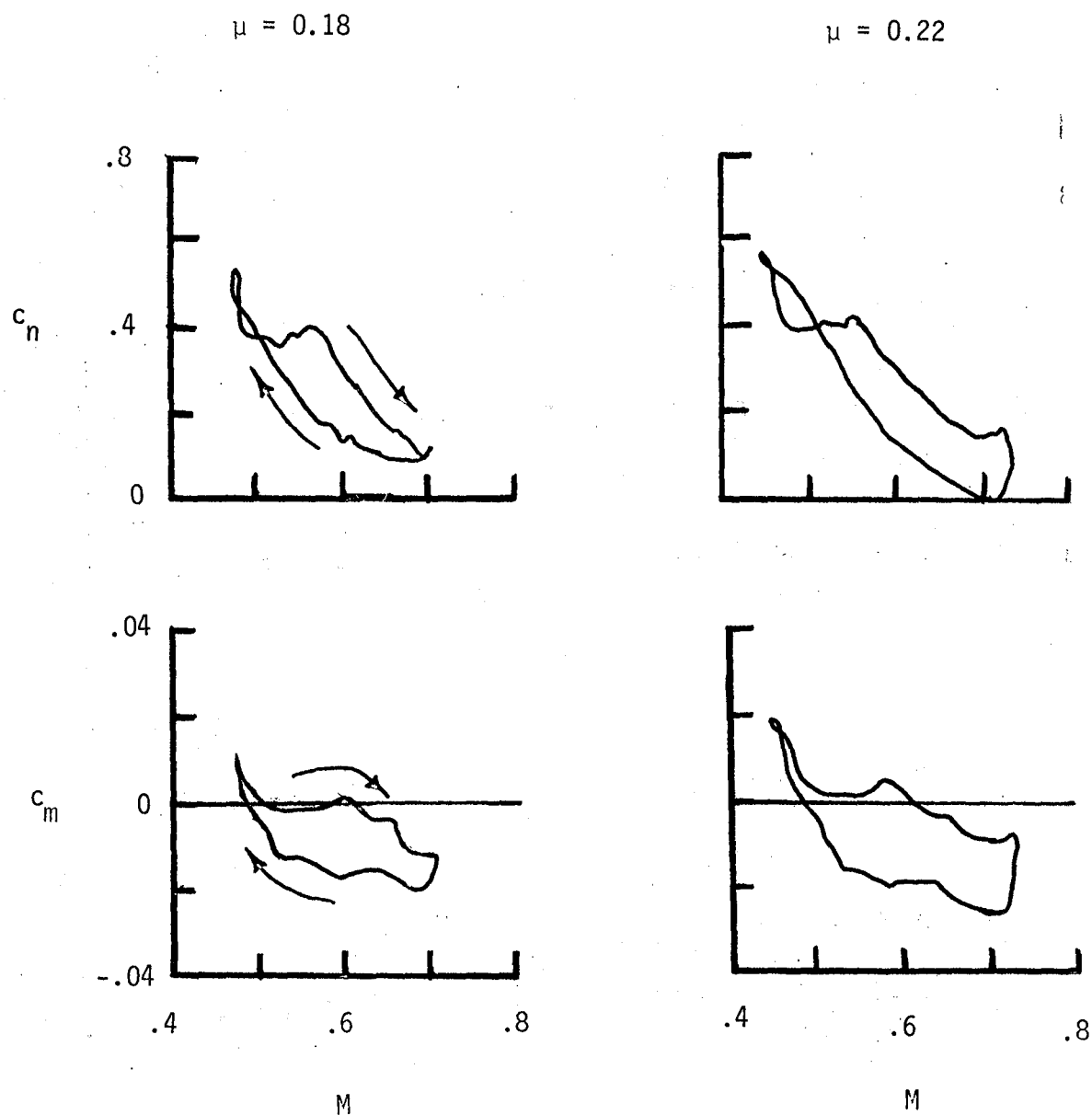
(c) Upper-surface pressure coefficient;  $x/c = 0.02$ .

Figure 12. - Continued.



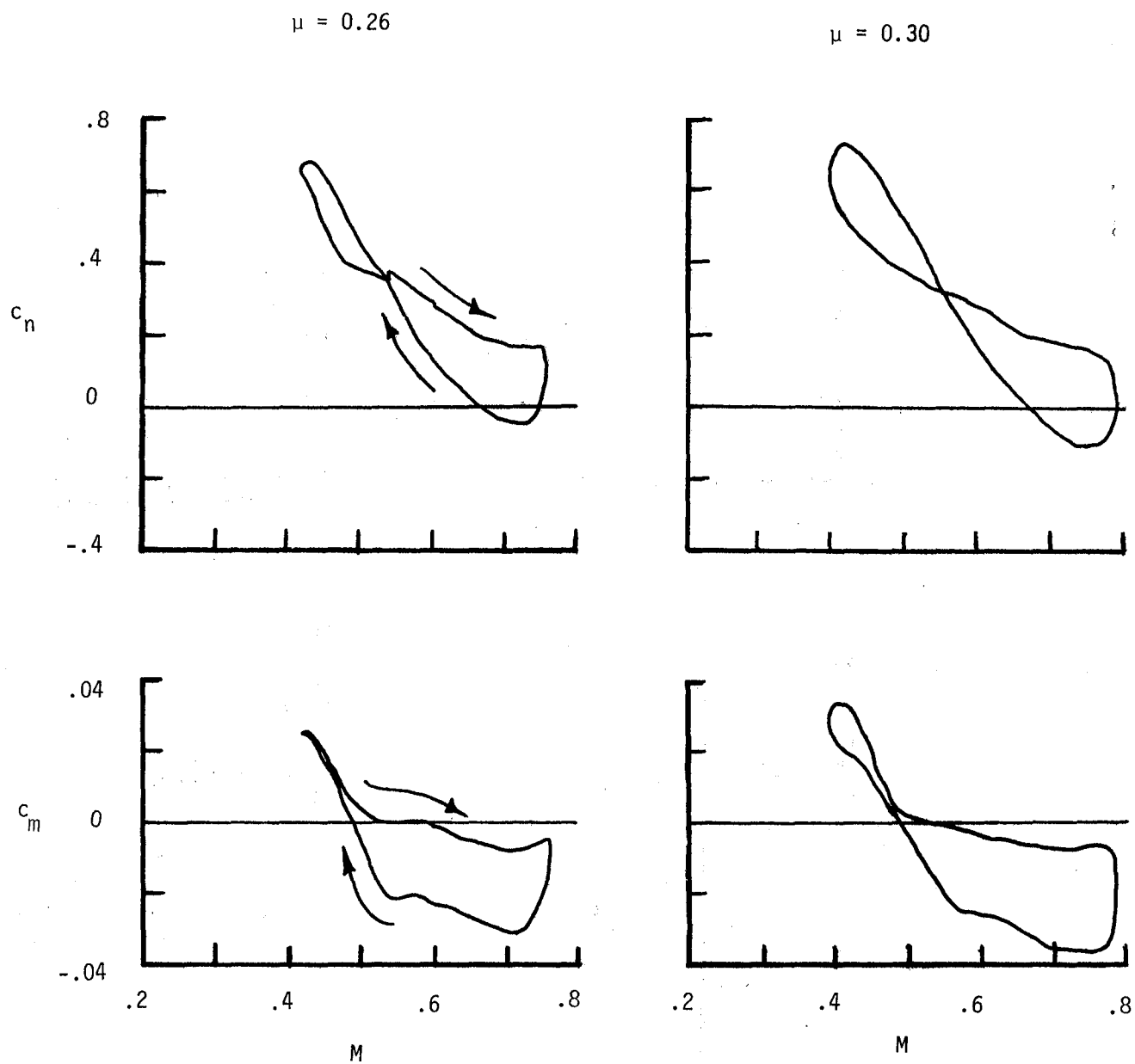
(d) Lower-surface pressure coefficient;  $x/c = 0.02$ .

Figure 12. - Concluded.



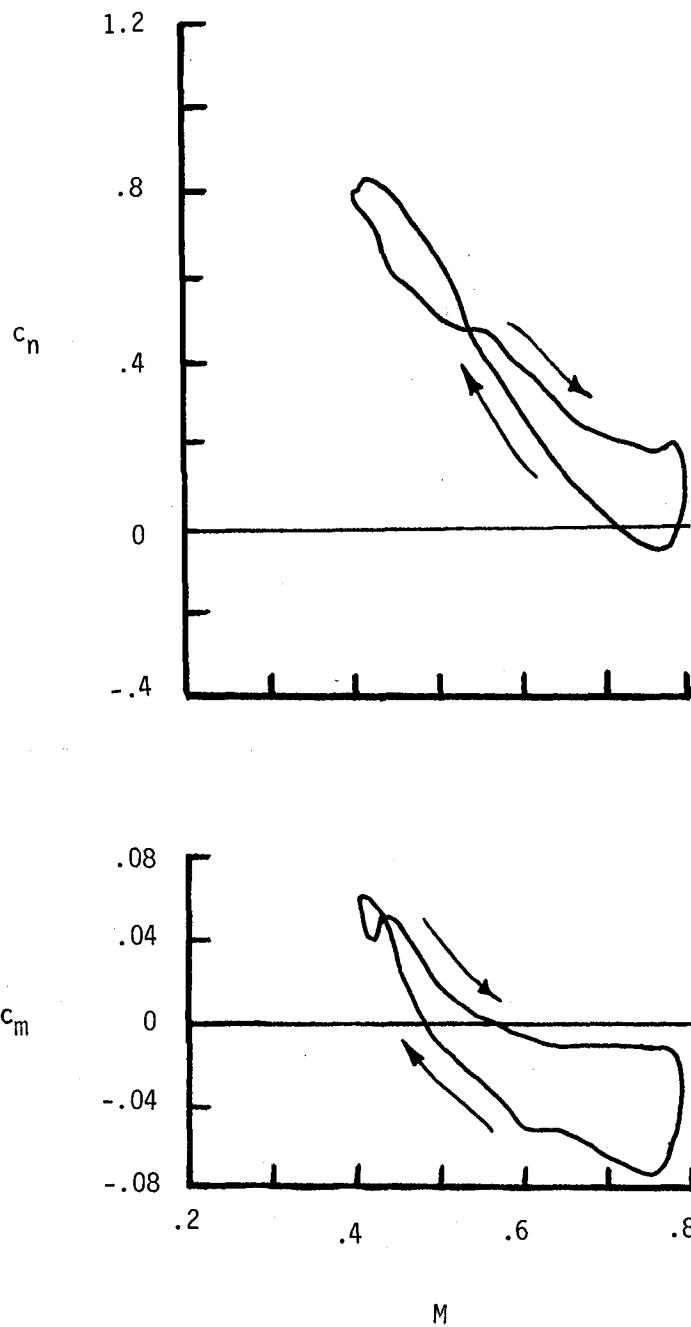
(a) Transition airspeeds;  $\bar{c}_L' = 0.0044$ .

Figure 13. - Blade-section operating conditions at a series of tip-speed ratios in level flight.  $r/R = 0.9$ .



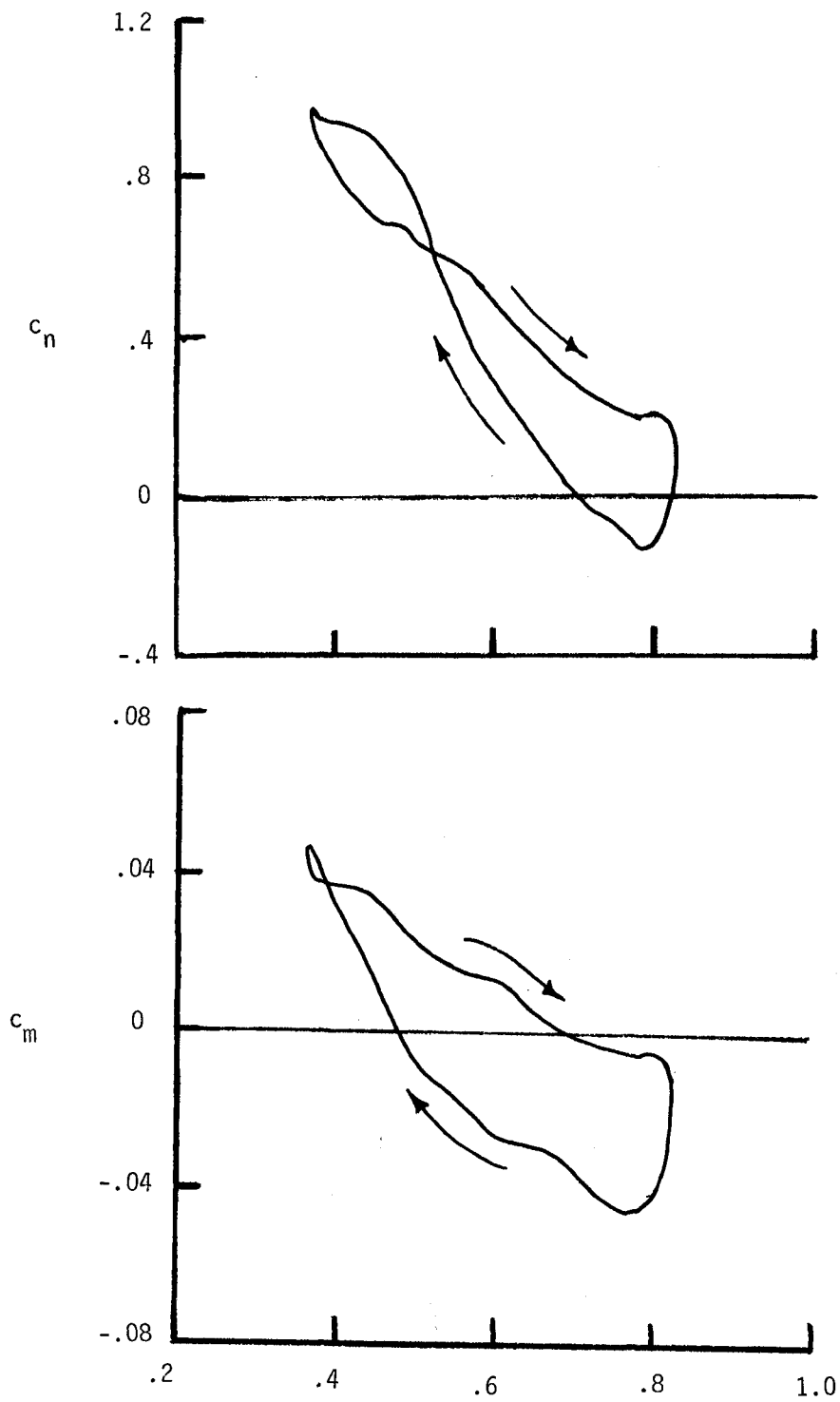
(b) Cruise conditions;  $\bar{c}_L' = 0.0045$ .

Figure 13. - Continued.



(c) High-speed condition;  $\mu = 0.296$ ;  $\bar{c}_L' = 0.0052$ .

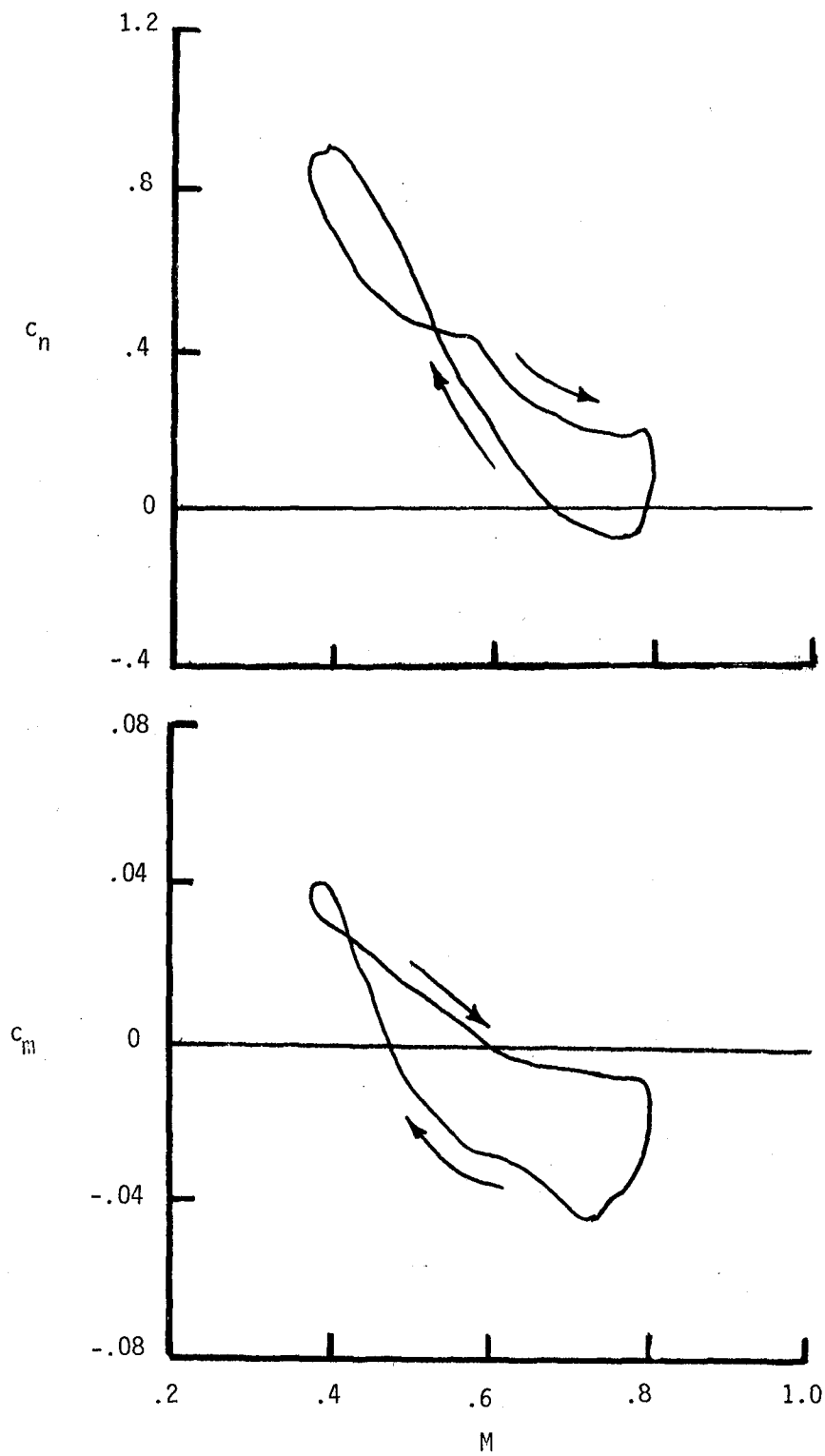
Figure 13. - Continued.



(d) High-speed condition;  $\mu = 0.33$ ;  $\bar{c}_L' = 0.0043$ .

Figure 13. - Continued.





(e) High-speed condition;  $\mu = 0.35$ ;  $\overline{C}_L' = 0.0053$ .

Figure 13. - Concluded.

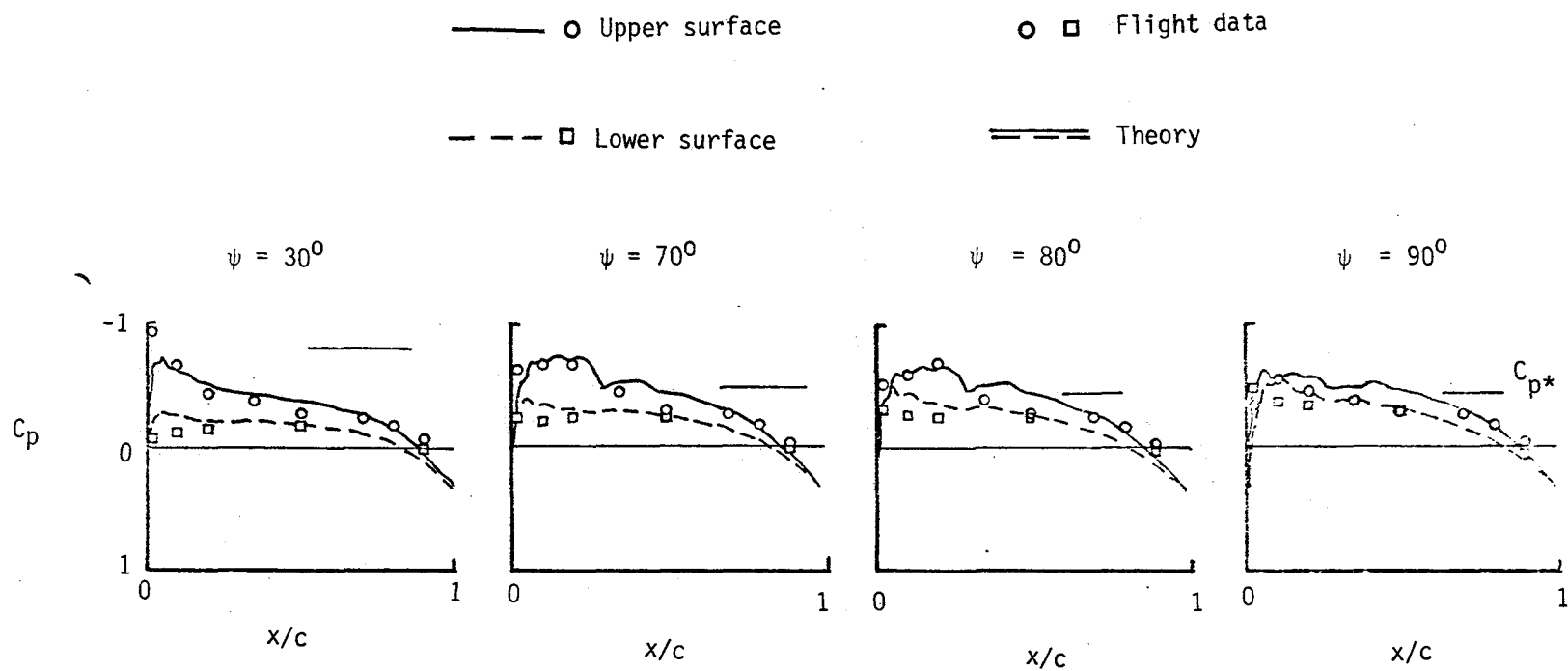


Figure 14. - Comparison of blade-section pressure data from level flight at  $\mu=0.33$  (flight 93, run 10,  $r/R=0.9$ ) and theory (ref. 13).

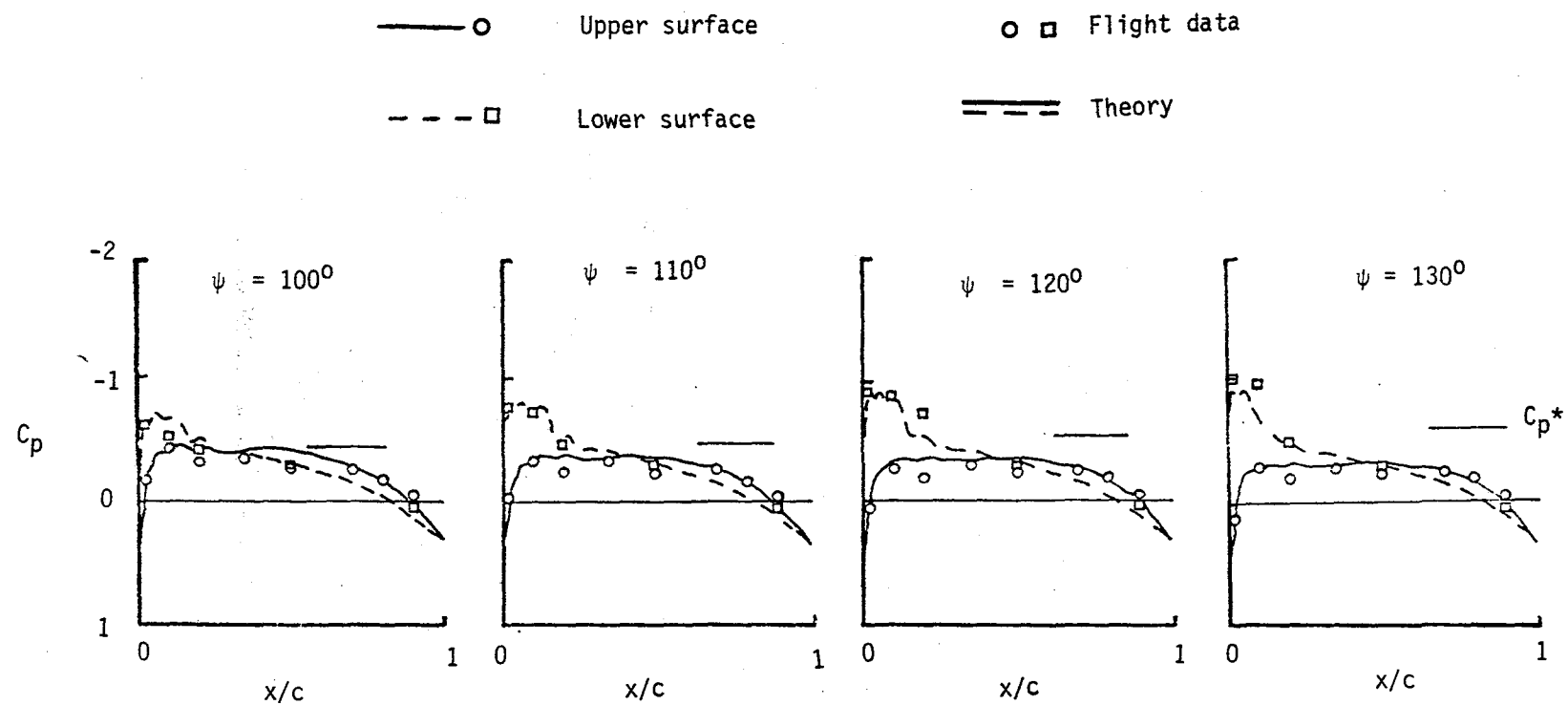


Figure 14. - Continued.

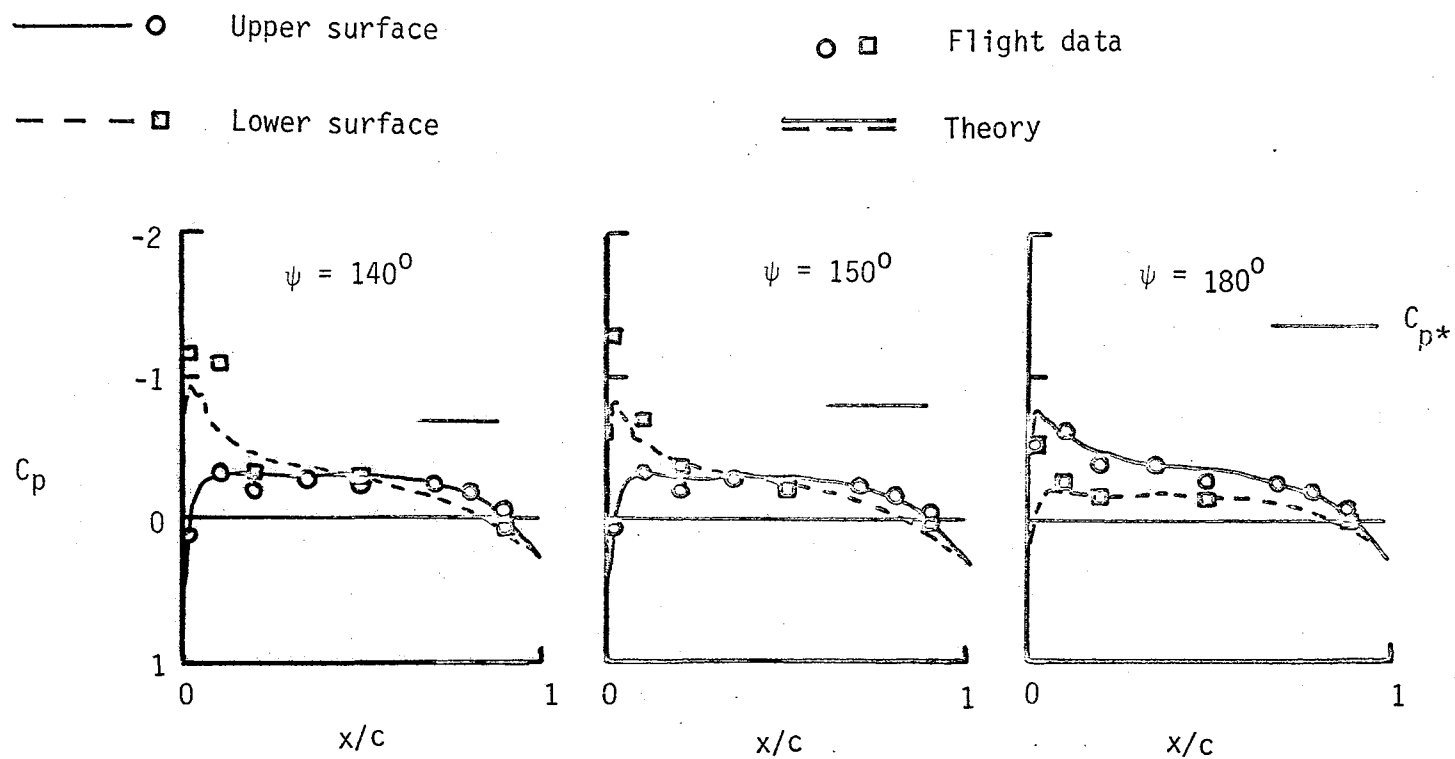


Figure 14. - Continued.

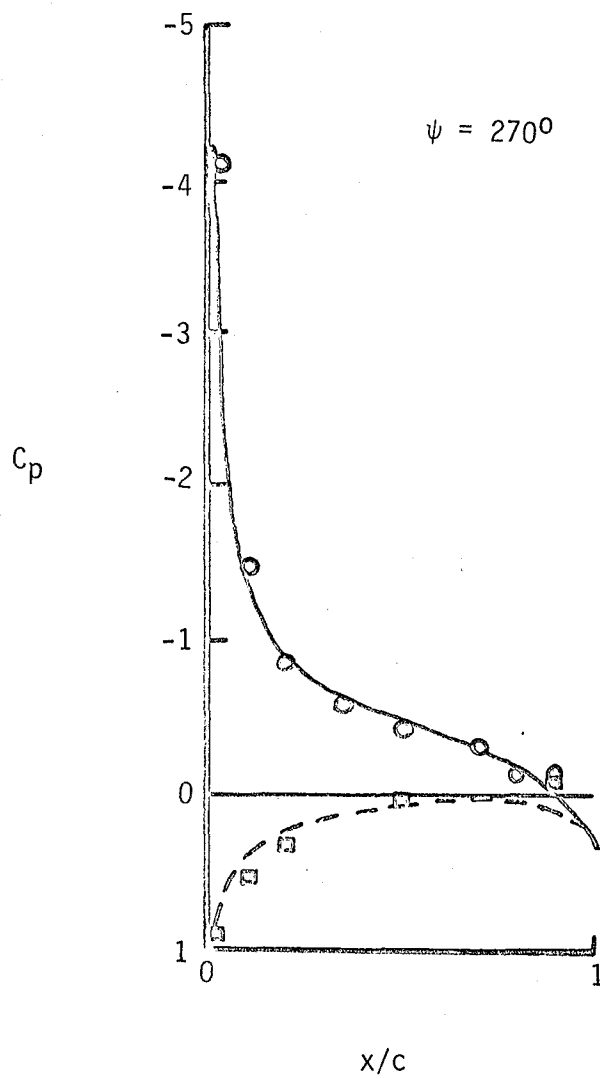
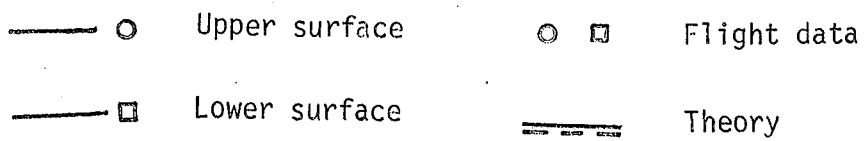


Figure 14. - Concluded.

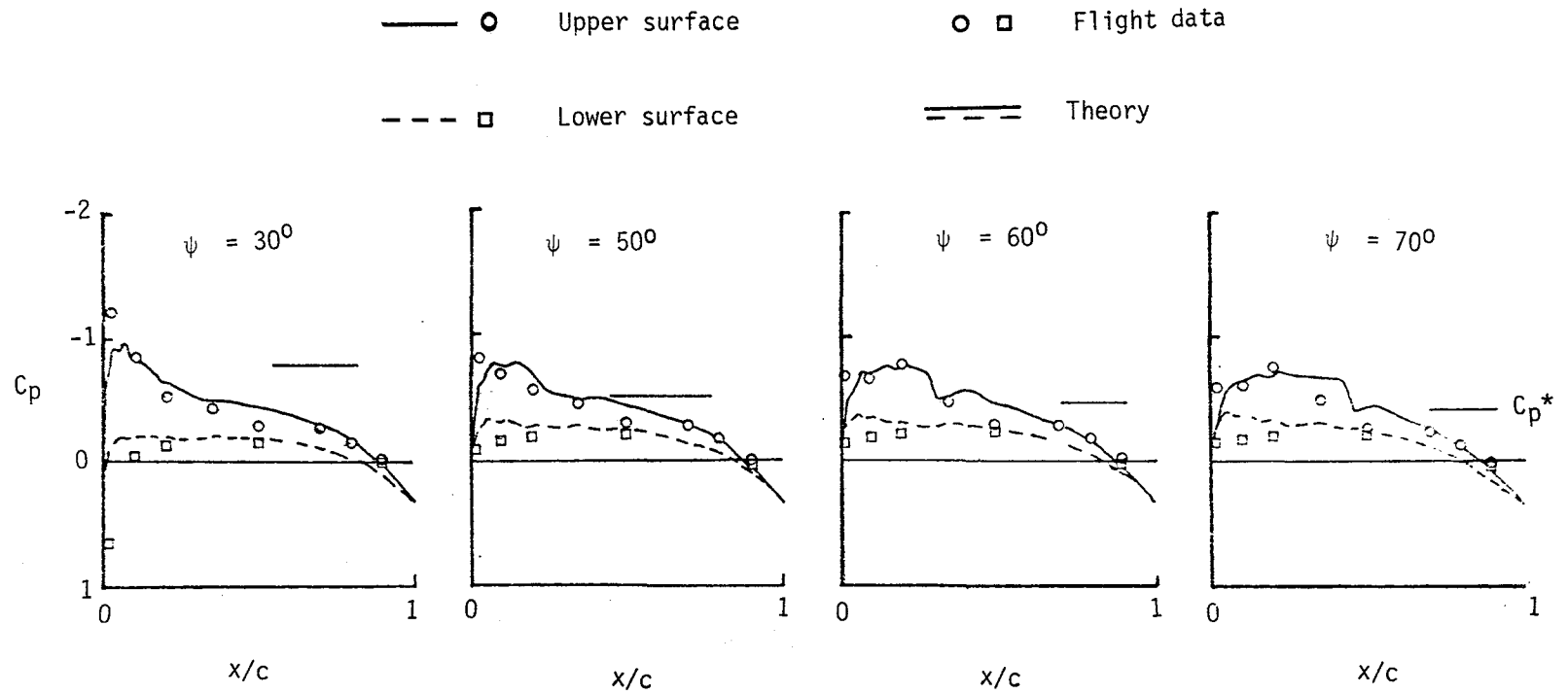


Figure 15. - Comparison of blade-section pressure data from level flight at  $\mu=0.35$  (flight 94, run 11,  $r/R=0.9$ ) and theory (ref. 13).

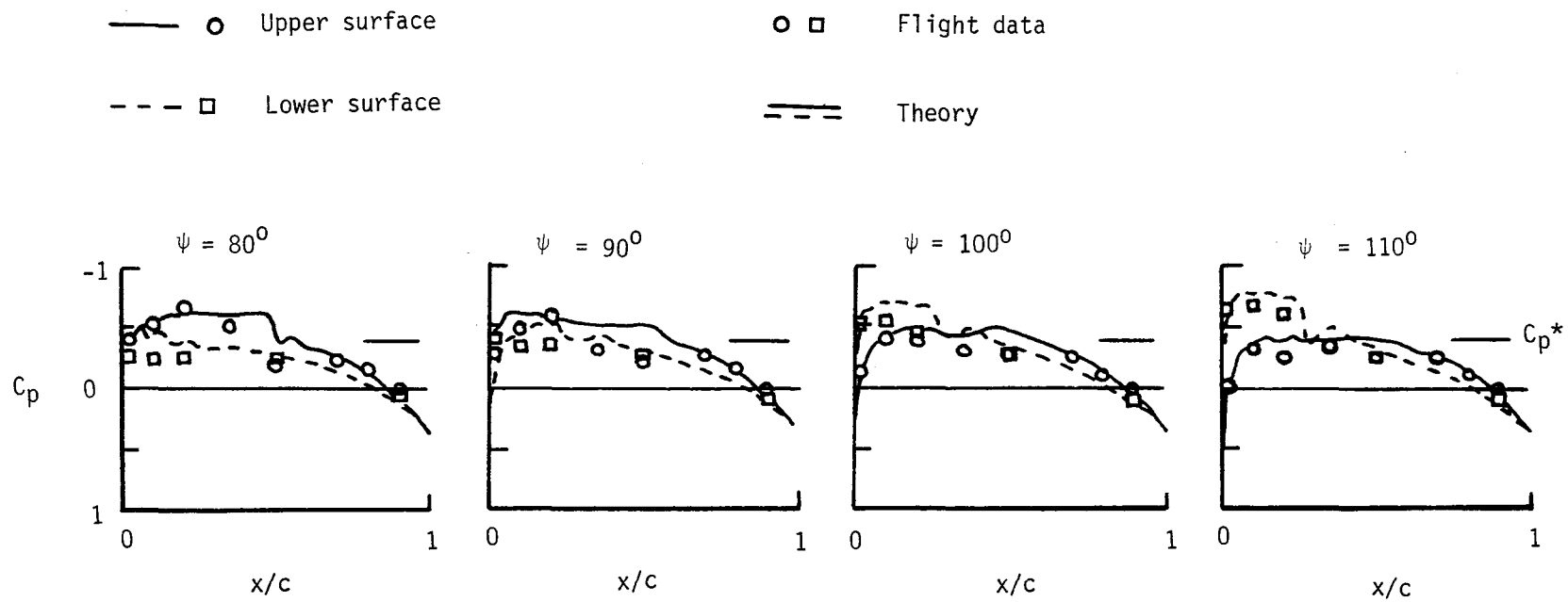


Figure 15. - Continued.

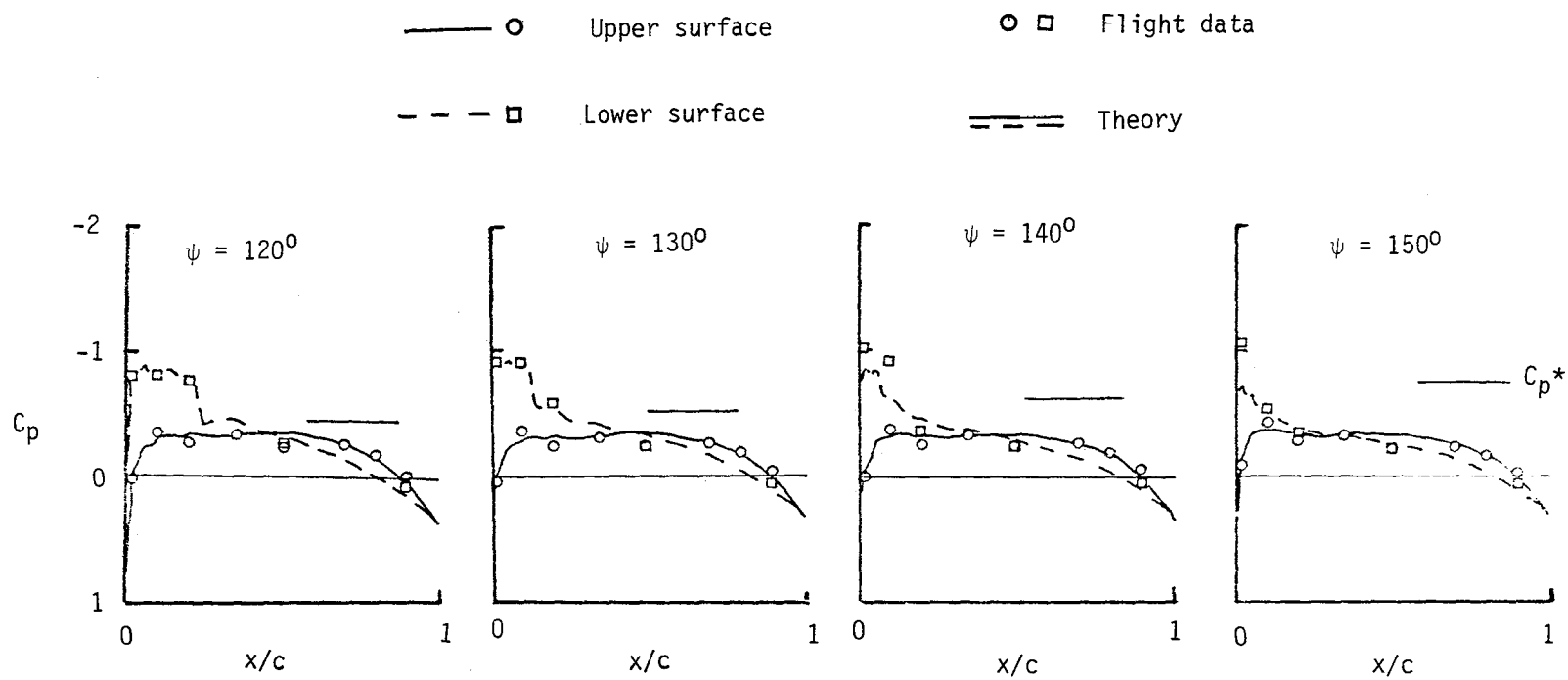


Figure 15. - Continued.



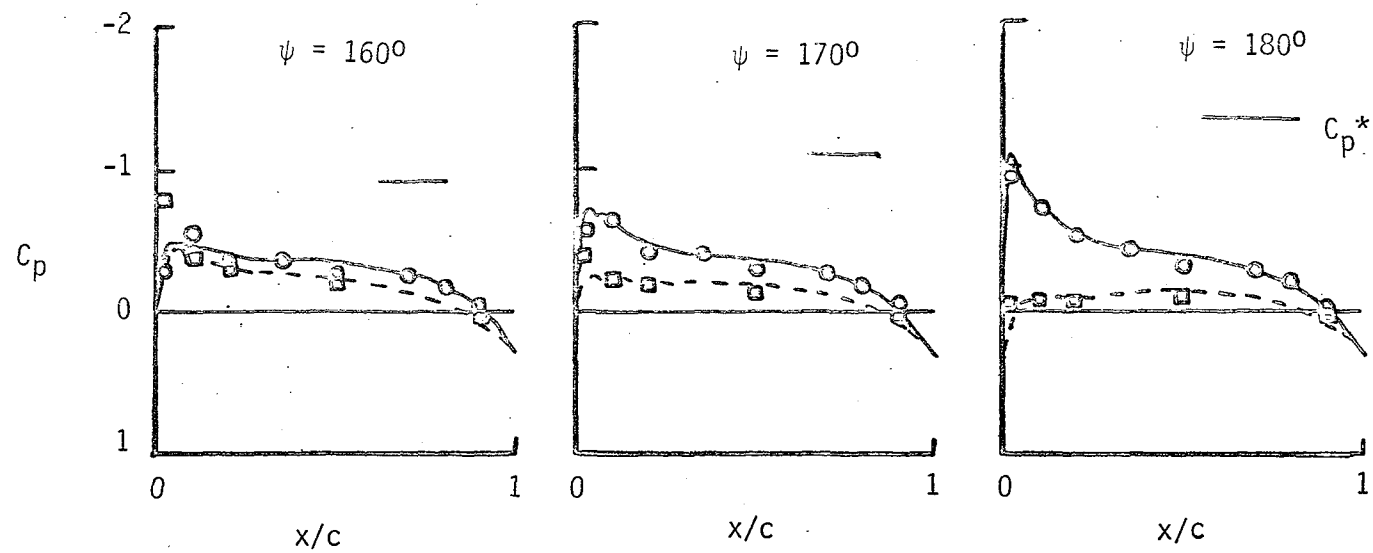


Figure 15. - Continued.

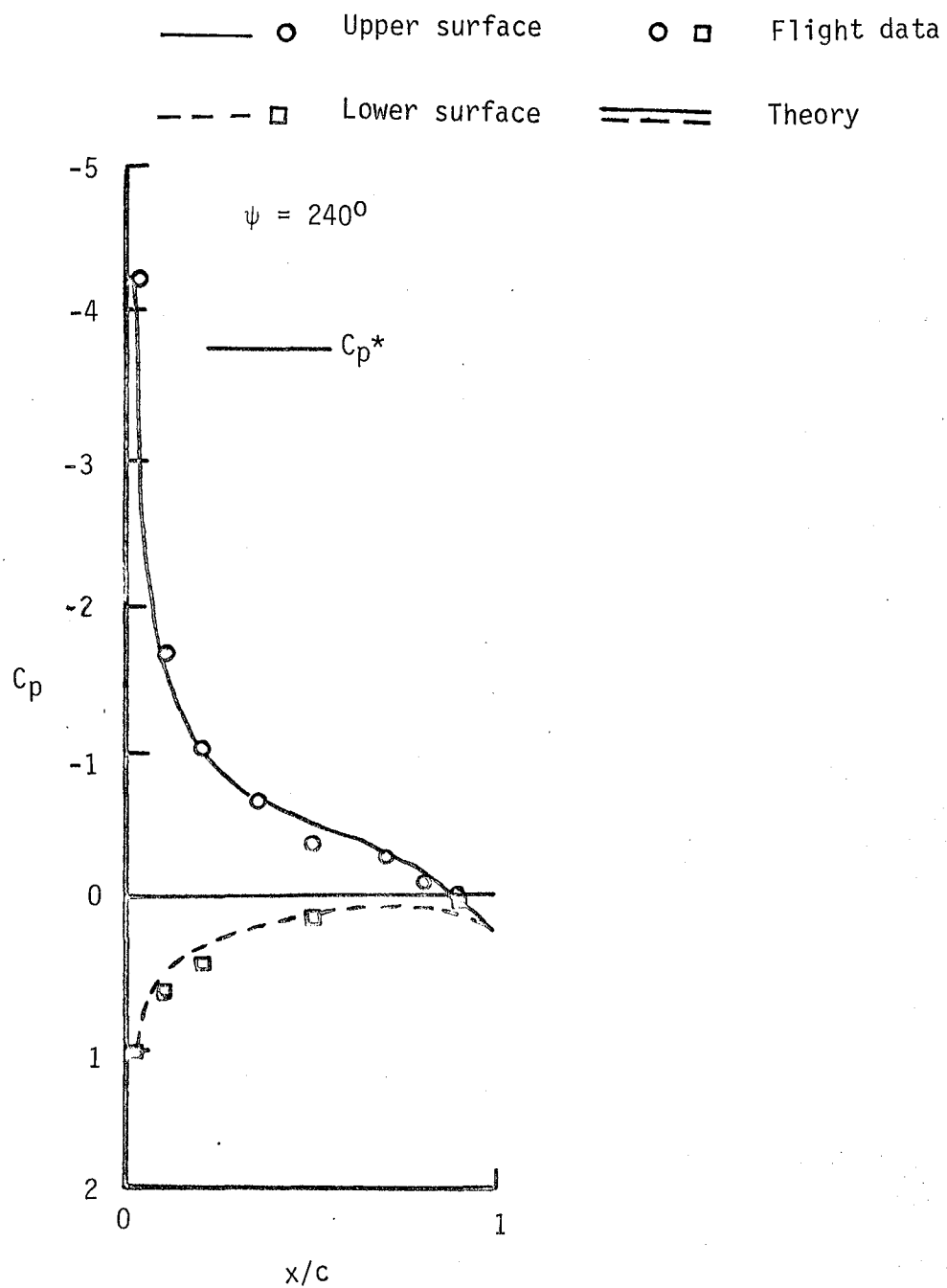


Figure 15. - Concluded.

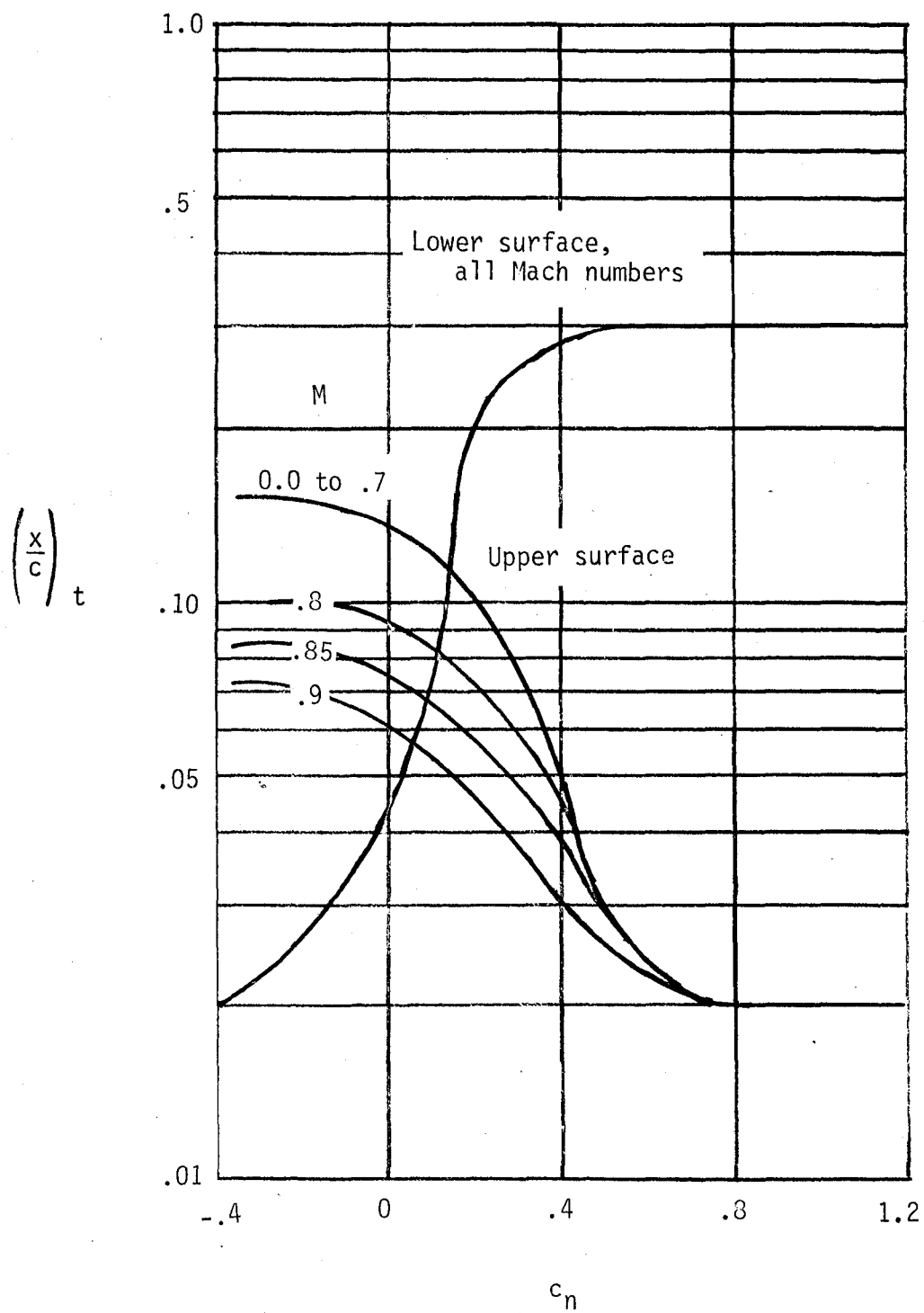


Figure 16. - Predicted blade-section boundary-layer transition for RC-SC2 blade section.

1. Report No. NASA TM 83298		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle A FLIGHT INVESTIGATION OF BLADE-SECTION AERODYNAMICS OF A HELICOPTER MAIN ROTOR HAVING RC-SC2 AIRFOIL SECTIONS				5. Report Date March 1982	
				6. Performing Organization Code 533-01-43-08	
7. Author(s) Charles E. K. Morris, Jr.				8. Performing Organization Report No.	
9. Performing Organization Name and Address NASA Langley Research Center Hampton, Virginia 23665				10. Work Unit No.	
				11. Contract or Grant No.	
12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Washington, DC 20546				13. Type of Report and Period Covered Technical Memorandum	
				14. Sponsoring Agency Code	
15. Supplementary Notes					
16. Abstract  A flight investigation has obtained pressure data at 90-percent blade radius for a helicopter main rotor with RC-SC2 blade sections. Concurrent measurements were made of vehicle flight state, performance and some rotor loads. The test envelope included hover, level flight from about 65 to 144 knots, climb and descent, and collective-fixed maneuvers. Good agreement is shown between some sets of airfoil pressure distributions obtained in flight and those from theoretical calculations for two-dimensional, steady flow.					
17. Key Words (Suggested by Author(s)) Airfoil Helicopter Teetering rotor			18. Distribution Statement UNCLASSIFIED - UNLIMITED Star Category 02		
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 162	22. Price A08		



LANGLEY RESEARCH CENTER



3 1176 00504 1117